

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX

75 Hawthorne Street San Francisco, CA 94105

September 1, 1993

MEMORANDUM

SUBJECT: Transmittal of Two Draft Study Plans for Review:

- Eutrophication Study Plan

- Model Prediction Verfication Study Plan

TO:

Janet Hashimoto

Chief, Marine Protectcion Section (W-7-1)

Terry Oda 241 f-T.O.

Chief, Permits Issuance Section (W-5-1)

FROM:

Pat Young

American Samoa Program Manager (E-4)

Attached please find copies of the draft study plans for two studies required by the American Samoa tuna canneries' NPDES permits: a eutrophication study plan, and a model prediction verification study plan. The eutrophication plan includes a reugest for an extension of six months so that it can be done concurrently with the model verification study, which is scheduled for completion by May 1, 1993. We foresee no problem with granting this extension.

We would appreciate your staff's review of these studies and submission of any comments to me by September 24, 1993. Should the reviewer need to discuss the technical aspects of the proposal, he/she should feel free to contact Steve Costa of CH2MHill at (510) 251-2426-2251. Please call me at (415) 744-1594 if you have any questions.

Thanks again for your assistance.

Enclosure (2)

cc: Mike Lee (E-4)

Red 8/31/93
Cyny to Janet H.,
Terry Oda



27 August 1993

PDX30702.EU.SP

Patricia N.N. Young American Samoa Program Manager Office of Pacific Islands and Native American Programs U.S. Environmental Protection Agency 75 Hawthorne Street (E-4) San Francisco, California 94105

Dear Pat:

Subject: Joint Cannery Outfall Eutrophication Study Plan

Attached is a draft study plan for the eutrophication study required by the NPDES permits for the Joint Cannery Outfall in Pago Pago Harbor, American Samoa. This study plan is for review by USEPA and ASEPA and is intended to comply with Part J of NPDES Permit Numbers AS0000019 and AS0000027. The study plan includes a request for an extension of six months so that the model verification study and the eutrophication study can be done concurrently. The schedule section of the study plan contains further explanation.

I am sending three copies by mail to facilitate distribution to reviewers. Please provide your comments on the study plan directly to me and to Norman Wei at StarKist and Jim Cox at Van Camp. If you or other reviewers have any questions, please feel free to call me at your convenience. I have sent the same material to Sheila Wiegman at ASEPA.

Thank you for your time and attention to this matter.

Sincerely,

CH2M HILL

Steven L. Costa Project Manager

cc: Norman Wei/StarKist Seafood Company James Cox/Van Camp Seafood Company

AGENCY REVIEW DRAFT

JOINT CANNERY OUTFALL EUTROPHICATION STUDY PLAN

for

StarKist Samoa, Inc. and VCS Samoa Packing Company

to comply with NPDES Permits

AS0000019 and AS0000027

August 1993

prepared by

CH2M HILL

JOINT CANNERY OUTFALL EUTROPHICATION STUDY PLAN

INTRODUCTION

This study plan describes the proposed approach for assessing the algal-nutrient relationships in Pago Pago Harbor, American Samoa. The study is required as a permit condition under NPDES permits for discharge of tuna processing wastewater into outer Pago Pago Harbor through the joint cannery outfall (JCO) operated by StarKist Samoa, Inc. and VCS Samoa Packing Company.

BACKGROUND

The NPDES permits for discharge of cannery wastewater through the JCO require the completion of a eutrophication study of the algal-nutrient dynamics in the harbor. This requirement is described in Part H of permit numbers AS0000019 and AS0000027 as follows:

"The permittee cooperatively with {Star-Kist Samoa, Inc; Samoa Packing Company} shall complete a study in which a direct assessment of the algal-nutrient relationships in Pago Pago Harbor is obtained. This study shall include construction of algal-nutrient response curves for a range of nitrogen-to-phosphorus ratios, nitrogen and phosphorus levels, salinity levels, and phytoplankton communities. This study is not intended to be exhaustive in nature, but to provide information on phytoplankton dynamics utilizing data from past and future water quality and sediment monitoring programs and/or may be conducted in conjunction with these programs as possible.

A proposed study design shall be submitted to ASEPA and EPA for approval within six months of the effective date of the permit. The study shall be completed and report submitted to ASEPA and EPA within one year of the effective date of the permit."

This study plan is being submitted to the U.S. Environmental Protection Agency (USEPA) and the America Samoa Environmental Protection Agency (ASEPA) to comply with the permit conditions described in Parts H of NPDES permit numbers AS0000019 and AS0000027. The study plan proposes and requests a

minor modification of the schedule described in the permit language for reasons discussed below.

The JCO is a new outfall that discharges treated wastewater from the canneries into outer Pago Pago Harbor. The JCO replaces two separate outfalls that previously discharged effluent into the inner harbor near the canneries. The canneries began discharging through the JCO in February of 1992. In addition, prior to initiating discharge through the new outfall, the canneries implemented high strength waste segregation in August 1991. The high strength waste is disposed of in a permitted ocean disposal site and does not influence the harbor.

The effects of high strength waste segregation and outfall discharge relocation on the water quality and algal population dynamics of the harbor are of particular interest. The location of the outfall discharge was based on environmental and engineering studies which included an assessment of effects on water quality including nutrient concentrations and the expected general effects on phytoplankton productivity (CH2M HILL, 1991a,b,c,d,e). The eutrophication study described below is intended to describe the overall algalnutrient relationships in more detail.

Water quality data for Pago Pago Harbor are available from a number of sources including a study to characterize the baseline water quality in the harbor (M&E Pacific, 1979), previous and ongoing water quality monitoring by ASEPA at specified sampling stations throughout the harbor (required as an NPDES permit condition), and water quality monitoring by the American Samoa Power Authority (ASPA) in conjunction with the Utulei Wastewater Treatment Plant. The ongoing monitoring program includes analysis of water samples from 17 specified stations throughout the harbor for a variety of constituents including total nitrogen (TN), total phosphorus (TP), and chlorophyll-a. Nutrient-algal productivity relationships were addressed, to a limited extent, in a wasteload allocation study for Pago Pago Harbor (HRI, 1989) based on available data.

Two dye studies are also required as conditions of the permits to observe the fate and transport of the effluent plume. The first (non-tradewind season) of these dye studies was conducted on February 17, 1993. The second (tradewind season) is scheduled to be performed in September/October 1993. The data collected from the water quality monitoring program and from the dye studies allow direct observation of the fate and transport of effluent constituents. The NPDES permit requirements dictate that these data be used to verify, and

possibly revise and update, the model predictions used in the earlier engineering studies for determining concentrations of TN and TP throughout the harbor, and to evaluate the effects of biological oxygen demand (BOD) in the effluent on dissolved oxygen (DO) the receiving water. The results of this modeling study, described in a separate study plan, will be used in the eutrophication study.

APPROACH

The eutrophication study will evaluate the algal-nutrient dynamics in Pago Pago Harbor through analysis of available data, field studies of phytoplankton growth in response to various nutrient levels, and modeling of the phytoplankton kinetics and nutrient cycles in the harbor using the EPA approved WASP4 water quality computer model (or equivalent). The study is divided into three separate but interrelated and complimentary tasks:

- Analysis of Available Data. Previous and ongoing water quality data will be used to provide a general long-term overview of algal levels and algal-nutrient relationships throughout the harbor.
- Field Data Collection. In situ field experiments will be conducted to develop algal nutrient response curves. The field data will provide direct data on phytoplankton levels for the conditions encountered during the sample collections.
- Model Simulations. The EPA model WASP4 (or equivalent) will be used to predict responses in the harbor to various levels of cannery effluent discharge. The computer model, calibrated and verified based on field observations, will allow representative conditions to be simulated to obtain a better understanding of the response of the harbor system to changes in nutrient loading.

The general approach to each of the major tasks is described below. A more detailed description of the methods to be used is described in the following section on Study Methods. Portions of this study plan are based on the expectation of valid and useful data from the ongoing water quality monitoring program. If there are data gaps in this data, our professional judgement will be used to modify the study as required to best meet the objectives of the permit condition. This will be done in consultation with USEPA and ASEPA.

Analysis of Available Data

Available data will be collected and analyzed to determine the historical response of the system to a range of nitrogen and phosphorus loadings at various locations in the harbor. Sources will include the Baseline Study performed by M&E Pacific (1979), monthly water quality monitoring data collected by ASEPA, available sediment monitoring data, and sediment and water quality data collected by ASPA if available.

Measurements of chlorophyll-a will be used as the indicator for relative phytoplankton levels. Data for each station will be analyzed individually and also grouped according to relative location in the harbor. For the purpose of grouping data, the harbor will be divided into three areas; the inner harbor, middle harbor, and outer harbor; with boundaries for each area as defined in previous studies. Data will be presented graphically and summarized in tabular form.

Field Data Collection

The field studies will be conducted in conjunction with the second dye study scheduled for September/October 1993 and will measure phytoplankton uptake of carbon-14 (\(^{14}\)C) as an indication of growth in response to specific nutrient levels. Water samples will be collected from three locations in the harbor (inner, middle, and outer harbor sites) to observe the response of representative phytoplankton communities throughout the harbor.

Model Simulations

WASP4, or an equivalent model as described below, will be used to model the eutrophication of the harbor under a range of conditions. WASP4 is a system of computer programs that can be used to model a range of water quality related processes. The model system, as proposed for use here, consists of two primary elements: a hydrodynamic program that simulates the movement of water, and a water quality program that simulates the movement and interaction of pollutants within the water.

The WASP4 model permits user supplied hydrodynamic data to be used as an alternative to using the included hydrodynamic program. Therefore, flows in the harbor used for the modeling may be taken from the results of CH2M

HILL's wastefield transport model of the harbor (CH2M HILL, 1991a) which is described in the model prediction verification study plan.

The eutrophication processes will be modeled using the EUTRO4 module for the WASP4 model (or a similar routine). EUTRO4 will model a number of reactions including phytoplankton growth and decay, and phosphorus and nitrogen cycles and their interactions.

STUDY SCHEDULE

The NPDES permit states that the eutrophication study should be completed within one year of the effective date of the permit. This study plan proposes a revision to this schedule for consistency with other studies being carried out as permit conditions, particularly the model prediction verification study. The revised schedule would delay the study report by approximately six months. CH2M HILL believes this revision will provide a higher quality, more comprehensive, and more useful study. We are also proposing to accelerate the schedule for the model prediction verification study to be consistent with the eutrophication study. The reasons for the requested change include:

- The most important reason is to revise the study schedule to allow the model prediction verification study and the modeling component of the eutrophication study to be concurrent. There is a significant overlap in most of the aspects of the two efforts. Both studies will benefit, but the eutrophication study will benefit more.
- The water quality monitoring data has not yet been reviewed and processed for use in the studies. This data is required, to some degree, for all three elements of the eutrophication study as well as for the modeling study. It is critical for the analysis of available data and for model calibration. In addition it is needed as a guide for nitrogen and phosphorous dosage levels during the field data collection part of the eutrophication study.
- The WASP4 model can be configured to include a sediment layer. Only one sediment monitoring period has been conducted under the permit condition. CH2M HILL has proposed that the second sediment monitoring data collection period be conducted concurrently with the second dye study. If the modified sediment

monitoring period is approved, additional sediment data would be available for possible use in the eutrophication study.

• The second dye study (September/October) will provide additional data required for the model verifications study. If the eutrophication study and model verification study are to be concurrent then the eutrophication study must be delayed from the schedule specified in the permit condition. In addition, data from the dye study will provide some direct input (for example trapping depths of the plume) of use in the eutrophication study.

Based on the above reasons CH2M HILL believes a minor change in the permit condition allowing the delay of the eutrophication study is worthwhile and desirable. We propose that the field portion of the study be conducted concurrently with the second dye study and that the study be completed within 18 months of the effective date of the permit (changed from one year).

STUDY METHODS

This section provides a more detailed description of the approach summarized above. The major features of the methods used will also be discussed. The approach is designed to maintain consistency with the previous studies and to utilize results of the concurrent model prediction verification study.

AVAILABLE DATA ANALYSIS

Data on water and sediment quality parameters in the inner, middle and outer harbor areas will be compiled from previous monitoring in Pago Pago Harbor. Data from each monitoring station will be compiled and analyzed. These data will be segregated by depth. In addition, data from the three harbor areas, and distinct water column layers within the harbor areas, will be grouped and addressed to separate any differences due to distinctive phytoplankton communities residing in these areas. Data will also be grouped, as available, based on distinct periods of cannery operation including, for example: the period prior to high strength waste segregation, the period after high strength waste segregation but prior to outfall relocation, and following outfall relocation.

Water quality parameters to be compiled will, as data are available, include: temperature, pH, DO, suspended solids, light penetration, turbidity, salinity, chlorophyll-a, TN, TP, and total ammonia. Statistics (including maximums, minimums, means, and variances) of each parameter based on this observed data will be generated to define ranges and expected conditions in the harbor. Sediment quality parameters will be available from two sediment monitoring periods and will include: TN, TP, percent organics, percent solids, size distribution, oxidation-reduction potential and sulfides. In addition to the analysis described below, this data will be used to develop the water quality model.

For each harbor area and operational period, scatter plots will be generated to investigate the effects of various water quality parameters on phytoplankton levels in the harbor. The ordinate for these plots (i.e. the dependent variable) will be chlorophyll-a levels as a measure of phytoplankton in the water. The abscissa for the plots will indicate levels of the water quality parameter of interest including nitrogen, phosphorus, and salinity. Regressions and other appropriate statistical analyses will be performed to illustrate the general trends in the data.

The analyses will use complete data sets for the area of interest as well as partial sets grouped in terms of nitrogen-to-phosphorus (N:P) ratios, if sufficient data are available. Plots generated using complete data sets will show overall trends for system response due to specific levels of nutrients in the water. Plots of partial data sets will show the response of the system to changes in a parameter for data points within a defined range of N:P ratios. Within the limits of the N:P ranges selected, these plots are intended to segregate data for nitrogen- and phosphorus-limited cases.

CARBON-14 UPTAKE FIELD STUDIES

Field studies will be done to measure the rate of photosynthesis based on the rate of carbon uptake. Samples of seawater will be taken from inner, middle, and outer harbor sampling locations. Photosynthesis rates will be measured at each location for a sample at the existing ambient levels of TN and TP as well as at elevated TN and TP levels achieved through spiking of the samples with known amounts of nitrate and phosphate solutions. The procedures discussed below for measurement of algal response to nutrient levels are based on methods by Strickland and Parsons (1972).

Sample Collection

Samples will be collected approximately 3 meters below the surface at each of the selected sampling stations. Approximately three liters of water will be collected at each location and stored in a plastic or glass container in a light tight box to prevent photosynthesis. The samples will be taken to shore for preparation.

A total of eight samples will be collected at each site for the carbon uptake studies: one sample to be used as a blank, one unspiked sample for existing TN and TP levels, and three samples each for spiking with elevated levels of nitrogen and phosphorus respectively. The nitrate or phosphate solutions will be added to the spiked samples to raise the available nitrogen or phosphorus levels above expected ambient levels by a factor of approximately 2, 5, and 10. Expected ambient levels will be estimated based on recent water quality sampling data and previous studies. The sample blank will be treated the same as the unspiked sample except that it will remain in a light tight container for the duration of the studies. Table 1 summarizes the samples that will be collected at each station. An additional sample will be collected at each station and analyzed for ammonia, nitrates, ortho-phosphate phosphorus, TN, TP, pH, and salinity.

Table 1. Samples for Carbon-14 Uptake Studies.			
Sample	TN Concentration	TP Concentration	
Blank	Ambient	Ambient	
Unspiked	Ambient	Ambient	
TN-1	2 x Ambient	Ambient	
TN-2	5 x Ambient	Ambient	
TN-3	10 x Ambient	Ambient	
TP-1	Ambient	2 x Ambient	
TP-2	Ambient	5 x Ambient	
TP-3	Ambient	10 x Ambient	

Sample Preparation

The samples will be prepared indoors out of direct sunlight. Preparation of each sample will involve filling a 300 ml BOD bottle with an airspace at the top sufficient to allow addition of the carbonate and nitrate or phosphate solutions. 2.00 ml of radiocarbon solution of an appropriate strength (25- μ c is appropriate for most ocean work) will be added to each sample. The appropriate volume of nitrate or phosphate solution will be added and each bottle will be topped off with additional sample water. The stoppers for each bottle will be secured with a wire or other appropriate means. The blank will be made up in a blackened bottle that precludes sunlight from entering. As the samples are made up they will be returned to a light tight box.

Illumination

All samples will be removed from the light tight box and placed in a secure location in the harbor at a depth of approximately 3 meters. The samples will remain exposed to sunlight for approximately 5 hours. Upon removal, each sample will be injected with 1 ml of a neutral formaldehyde solution to terminate any further photosynthesis.

Filtration and Storage

The entire contents of each bottle will be filtered through an individual 25-mm HA Millipore membrane filter. The filter will be removed, fixed to a planchette, and stored in a desiccator.

Calculation of Photosynthesis

The samples will be delivered to a laboratory to measure the radioactivity of the phytoplankton samples. The measured photosynthesis will be calculated based on the Geiger counter readings as:

Photosynthesis (mg C/m³ per hour) =
$$\frac{(R_s - R_b) \times W \times 1.05}{R \times N}$$

where:

R_s = the normalized counting rate for the sample (counts per minute of the Geiger counter)
R_b = the normalized counting rate for the blank

W = the weight of carbonate carbon present in the water $(mg C/m^3)$

R = the count expected from the 2.00 ml radiocarbon solution

N = the number of hours the samples were exposed to light

Results will be presented as plots of rate of photosynthesis as functions of nitrogen and phosphorus levels.

WATER QUALITY MODELING

The eutrophication dynamics in Pago Pago Harbor will be simulated using the EPA model WASP4 or an equivalent model. The potential alternative model is an additional modification of the wastefield transport model (PT121) to include the algorithms used in the EPA model. This alternative will be assessed prior to the start of the modeling tasks. EUTRO4, the eutrophication module in the WASP4 system, or an equivalent routine, will be used to model the algal response to changes to TN and TP. Six levels of complexity are available in EUTRO4 depending on the parameters and interactions to be modeled. The simple eutrophication model (level 4), or an equivalent routine, will be used to simulate the algal-nutrient relationships in Pago Pago Harbor.

The major elements of the model will include:

- Two or three layers within the water column, depending on the approach selected for the model prediction verification study discussed above, will be used.
- A sediment layer will be included in the model, if needed, depending on the information available from the sediment monitoring study.
- Advective transport will be limited to tidal currents based on predictions of DYNHYD (the hydraulics module for WASP4) or results from PT121.
- Diffusive transport will be based on the diffusion coefficient(s) developed from the model prediction verification study for the wastefield transport study. Additional calibration/verification runs will be done with WASP4 if there is a significant change in cell

size between the models. Calibration for diffusion coefficient will be base on the water quality monitoring data and will include the quasi-random wind induced transport.

 Other coefficients required in the nutrient response model will be based on field data (by actual measurement or by applying model calibration techniques) and/or accepted values from the literature.
 We anticipate that most coefficients will be derived from actual field observations.

The model will be run for a range of cannery loading scenarios with the objective of understanding the impacts of cannery discharge on the harbor wide algal response to nutrient loadings. Other point and nonpoint source loadings will be estimated based on available data.

QUALITY ASSURANCE AND QUALITY CONTROL

The quality assurance and quality control objective for the eutrophication study is to combine available monitoring data, field studies, and numerical modeling to evaluate the algal-nutrient response characteristics in Pago Pago harbor to an acceptable confidence level. Quality assurance and quality control will be achieved using appropriate methods for data reduction and analysis, sampling and measurement of field data, and model development and calibration. The following requirements will be followed to meet these objectives:

- Develop and use an operations plan for field studies.
- Provide equipment and material redundancy for field studies.
- Data collection and analysis will be done by qualified personnel with expertise in the study methods and experience in Pago Pago Harbor.
- Selection and use of a laboratory with acceptable QA/QC procedures and relevant experience.
- Verify and calibrate the numerical model based on observed field measurements.

DATA ANALYSIS AND PRESENTATION

A report documenting the results of all analyses will be presented to EPA and ASEPA. The report will include summaries of available data used, field data collected, model input data, and modeling procedures. Pertinent raw data, field logs, chain of custody forms, data analysis procedures, model results and output files, and other documentation (as appropriate) will be reproduced as an appendix to the report. Results will be presented both in tabular form and graphically as appropriate. The report will include: an executive summary; an introduction describing the background, rationale, and general approach of the study; a description of the methods used; a description of the results of each of the three primary tasks; and an evaluation of the results in terms of nutrient loading impacts.

REFERENCES

Ambrose, R.B., et al., 1988. "WASP4, A Hydrodynamic and Water Quality Model--Model Theory, Users Manual, and Programmer's Guide". EPA/600/3-87/039. Environmental Research Laboratory, U.S. Environmental Protection Agency, Athens, GA. January 1988.

CH2M HILL, 1991a. "Engineering and Environmental Feasibility Evaluation of Waste Disposal Alternatives". Final Report. Prepared for StarKist Samoa, Inc. March 1991.

CH2M HILL, 1991b. "Use Attainability and Site-Specific Criteria Analyses: Pago Pago Harbor, American Samoa". Prepared for StarKist Samoa, Inc. and VCS Samoa Packing Co. March 1991.

CH2M HILL, 1991c. "Site Specific Zone of Mixing Determination for the Joint Cannery Outfall Project: Pago Pago Harbor American Samoa". Technical Memorandum prepared for American Samoa Environmental Quality Commission, August 1991.

CH2M HILL, 1991d. "Draft Environmental Impact Assessment for Joint Cannery Outfall Project, Pago Pago Harbor, American Samoa". Prepared for Economic Development Planning Office, American Samoa Coastal Management Program, August 1991.

AGENCY REVIEW DRAFT August 1993

CH2M HILL, 1991e. "Final Environmental Impact Assessment for Joint Cannery Outfall Project, Pago Pago Harbor, American Samoa". Prepared for Economic Development Planning Office, American Samoa Coastal Management Program, October 1991.

HRI, 1989. "A Wasteload Allocation Study for Pago Pago Harbor, American Samoa". Prepared for American Samoa Environmental Protection Agency by Hydro Resources International, Arcata, CA.

M&E Pacific. "Baseline Water Quality Survey in American Samoa". Prepared for United States Army Engineer Division Pacific Ocean, Honolulu, October 1979.

Strickland, J.D.H. and T.R. Parsons. <u>A Practical Handbook of Seawater Analysis</u>. Bulletin 167 (Second edition), Fisheries Research Board of Canada, Ottawa, 1972

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2 September 1993

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Patricia N.N. Young American Samoa Program Manager Office of Pacific Islands and Native American Programs U.S. Environmental Protection Agency 75 Hawthorne Street (E-4) San Francisco, California 94105

Dear Pat:

Subject:

Joint Cannery Outfall Revised Eutrophication Study Plan

Attached is a revised draft study plan for the eutrophication study required by the NPDES permits for the Joint Cannery Outfall in American Samoa. The revision concerns the replacement of the Carbon-14 Uptake Field Studies because of problems with licensing requirements and custom restrictions. Instead, a Nutrient Stimulation Field Study will be done. This method will deliver results equivalent to those that would have been obtained by the carbon-14 uptake method.

I am forwarding only the revised sections of the study plan by FAX to be followed with a complete original copy by mail. In the faxed version, revisions are indicated in bold type. Please provide your comments on the study plan directly to me and to Norman Wei at Starkist and Jim Cox at Van Camp. I apologize for any inconvenience these changes may cause you. If you or other reviewers have any questions, please feel free to call me at your convenience. I have sent the same material to Sheila Wiegman at ASEPA.

Thank you for your time and attention to this matter.

Sincerely,

CH2M HILL

Steven L. Cosa for see

Project Manager

Norman Wei/StarKist Seafond Company James Cox/Van Camp Seafood Company

CH2M HILL

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NUTRIENT STIMULATION FIELD STUDIES

Field studies will be done to measure the rate of phytoplankton growth based on algal biomass changes as measured by chlorophyll concentrations and cell counts. Samples of seawater will be taken from inner, middle, and outer harbor sampling locations. Growth rates will be measured at each location for a sample at the existing ambient levels of TN and TP as well as at elevated TN and TP levels achieved through spiking of the samples with known amounts of nitrate and phosphate solutions. The procedures discussed below for measurement of algal response to nutrient levels are based on methods by Strickland and Parsons (1972).

The previously proposed carbon-14 uptake measurements of photosynthesis were deemed impractical due to carbon-14 licensing considerations. Algal biomass changes assessed as longer-term (5-day) experiments will provide an acceptable measure of nutrient stimulation and actually may provide a more direct measure of algal response than short-term assays (Barlow et al., 1973).

Sample Collection

Samples will be collected approximately 3 meters below the surface at each of the selected sampling stations. Approximately eight to ten gallons of water will be collected at each location and stored in a plastic or glass container in a light tight box to prevent photosynthesis. The samples will be taken to shore for preparation.

A total of eight samples will be collected at each site for the growth rate studies: one sample to be used as a blank, one unspiked sample for existing TN and TP levels, and three samples each for spiking with elevated levels of nitrogen and phosphorus respectively. The nitrate or phosphate solutions will be added to the spiked samples to raise the available nitrogen or phosphorus levels above expected ambient levels by a factor of approximately 2, 5, and 10. Expected ambient levels will be estimated based on recent water quality sampling data and previous studies. The sample blank will be treated the same as the unspiked sample. Table 1 summarizes the samples that will be collected at each station. An additional sample will be collected at each station and analyzed for ammonia, nitrates, ortho-phosphate phosphorus, TN, TP, pH, and salinity.

Table 1. Samples for Phytoplankton Growth Rate Studies.			
Sample	TN Concentration	TP Concentration	
Unspiked	Amhient	Ambient	
TN-1	2 x Ambient	Ambient	
TN-2	5 x Amhient	Ambient	
TN-3	10 x Ambient	Ambient	
TP-1	Ambient	2 x Ambient	
TP-2	Ambient	5 x Ambient	
TP-3	Ambient	10 x Ambient	

Sample Preparation

Samples will be prepared by filling 1 gallon cubitainers with water from the appropriate site. The appropriate volume of nitrate or phosphate solution will be added and the cubitainer will be topped off with additional sample water and thoroughly mixed. As the samples are made up they will be returned to a light tight box.

Illumination

All samples will be removed from the light tight box and placed in a secure location in the harbor at a depth of approximately 3 meters. The samples will remain exposed to ambient conditions for approximately 5 days. Subsamples will be removed for chlorophyll-a determination from each cubitainer at days 2 and 5.

Filtration and Storage for Chlorophyll-a Determination

Measured subsamples will be taken from each cubitainer following thorough mixing and filtered through individual 25-mm HA Millipore membrane filters. Each of the filters will be removed, folded to enclose the filtered phytoplankton, individually wrapped in light-tight foil, and frozen immediately for transport to the laboratory.

Phytoplankton Cell Counts

Subsamples will be taken from each cubitainer for each collection period for the determination of phytoplankton abundance and biomass as estimated by direct cell counts. The samples will be preserved and stored and will be counted only if needed to provide clarity or elaboration for the chlorophyll-a results. One hundred milliliter samples will be collected from mixed cubitainer contents and preserved with 1% Lugol's solution. Species identifications, as well as cell counts and bio-

volume estimates of biomass will be made using settling chambers and inverted microscope methodology.

Phytoplankton Growth Rates

Samples will be delivered to the laboratory for standard chlorophyll-a analysis immediately after collection on days, 0, 2, and 5 of the nutrient stimulation experiment. Results will be presented as growth rates over the period from days 0-2, 0-5, and 2-5 based on the following equation:

Specific Growth Rated, $d^{-1} = (ln(X2/X1))/(T2-T1)$

where:

X2 = Biomass at end of incubation

X1 = Biomass at start of incubation

T2-T1 = Duration of incubation interval

Comparison among test conditions will be based on maximum specific growth rates estimated over the course of the experiment.

Biomass conversions from chlorophyll-a to cell carbon will be made following the recommendations of Strickland and Parsons (1972).

Results will be presented as plots of growth rates as functions of nitrogen and phosphorus levels.

Red 8/31/93 Cgny to Janet H., Terryoda



27 August 1993

PDX30702.MD.SP

Patricia N.N. Young
American Samoa Program Manager
Office of Pacific Islands and Native American Programs
U.S. Environmental Protection Agency
75 Hawthorne Street (E-4)
San Francisco, California 94105

Dear Pat:

Subject: Joint Cannery Outfall Model Prediction Verification Study Plan

Attached is a draft study plan for the model prediction verification study required by the NPDES permits for the Joint Cannery Outfall in Pago Pago Harbor, American Samoa. This study plan is for review by USEPA and ASEPA and is intended to comply with Part H of NPDES Permit Numbers AS0000019 and AS0000027. The model study plan is being submitted well ahead of schedule so that the eutrophication study and the modeling study can be conducted concurrently.

I am sending three copies by mail to facilitate distribution to reviewers. Please provide your comments on the study plan directly to me and to Norman Wei at StarKist and Jim Cox at Van Camp. If you or other reviewers have any questions, please feel free to call me at your convenience. I have sent the same material to Sheila Wiegman at ASEPA.

Thank you for your time and attention to this matter.

Sincerely,

CH2M HILL

Steven L. Costa Project Manager

cc: Norman Wei/StarKist Seafood Company James Cox/Van Camp Seafood Company

MODEL PREDICTION VERIFICATION

AGENCY REVIEW DRAFT

JOINT CANNERY OUTFALL MODEL PREDICTION VERIFICATION STUDY PLAN

for

StarKist Samoa, Inc. and VCS Samoa Packing Company

to comply with NPDES Permits

AS0000019 and AS0000027

August 1993

prepared by

CH2M HILL

JOINT CANNERY OUTFALL MODEL PREDICTION VERIFICATION STUDY PLAN

INTRODUCTION

This study plan describes the rationale and approach of the model prediction verification study for the Joint Cannery Outfall (JCO) in Pago Pago Harbor, American Samoa. The purpose, background, and general approach to the study are presented first. Then the following section provides a detailed explanation of the approaches proposed for the various individual study tasks. Discussions of Quality Control/Quality Assurance and reporting format are then presented, followed by a list of pertinent references. A technical description of the wastefield transport model, a key element of the study, is attached to the study plan.

PURPOSE

MODEL VERIFICATION

The study addresses the verification of models used to determine the permitted zone of mixing (ZOM) for the JCO. The purpose of this study plan is to describe the proposed approaches for: [1] using field data to verify the previous analyses of the fate and transport of cannery effluent, and [2] developing an evaluation effects of the discharge on dissolved oxygen (DO) concentrations throughout Pago Pago harbor.

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BACKGROUND

The JCO is a new outfall operated by StarKist Samoa, Inc. and VCS Samoa Packing Company. The outfall discharges treated wastewater from the canneries into outer Pago Pago Harbor. The JCO replaces two separate outfalls that previously discharged effluent into the inner harbor near the canneries. The canneries began discharging through the JCO in February of 1992. In addition, prior to initiating discharge through the new outfall, the canneries implemented high strength waste segregation in August 1991. The high strength waste is disposed of in a permitted ocean disposal site and does not influence the harbor.

The effects of high strength waste segregation and outfall discharge relocation - NIAH STRENGTH on the waster and its first of the strength waste segregation and outfall discharge relocation - NIAH STRENGTH on the water quality of the harbor were modeled by CH2M HILL (1991a). The size and location of the ZOM was based on environmental and engineering studies which included model predictions of the initial and subsequent dilution and the farfield transport processes (CH2M HILL, 1991a). Newly issued NPDES permits are based on the approved zone of mixing.

WASTE SEGREGA TION - DISCHARGE RELOCATION

The NPDES permits require implementation of a receiving water quality monitoring program to determine compliance with water quality standards. The monitoring program includes analysis of water samples from 17 specified stations throughout the harbor. The objective of the monitoring program is to document water quality near the outfall discharge, near the zone of initial dilution (ZID), within the ZOM and at the ZOM boundaries, and at other locations throughout the harbor. Data collection for the monitoring program is conducted monthly by the American Samoa EPA. Monitoring reports documenting the water quality data are submitted to USEPA on a quarterly basis.

Two dye studies are also required as conditions of the permits to observe the fate and transport of the effluent plume. The first (non-tradewind season) of these dye studies was conducted on February 17, 1993. The second (tradewind season) is scheduled to be performed in September/October 1993.

The data collected from the water quality monitoring program and from the dye studies allow direct observation of the fate and transport of the discharged effluent. The NPDES permit requirements dictate that these data be used to verify the model predictions used in the earlier engineering studies for determining the ZOM and to evaluate the effects of BOD in the effluent on DO in the receiving water. This requirement is described in Part J of NPDES permit Numbers AS0000027 and AS0000019 as follows:

"Within three months after both dye studies have been completed, the permittee, cooperatively with {Star-Kist Samoa, Inc.; Samoa Packing Co.}, shall submit a study plan to USEPA and ASEPA that will discuss how the permittees will utilize the results from the monitoring data and from the dye studies to verify the models used in the determination of the mixing zones (the 30-second dilution zone, the ZID, and the ZOM). Also, the plan shall discuss how the permittee will examine the effects of BODs in the effluent on Dissolved Oxygen (DO) in the receiving water, utilizing an appropriate model and one year's worth of ambient data. Upon

approval of the study plan by USEPA and ASEPA, the permittee shall initiate the studies indicated and submit reports on a yearly basis. Reports shall summarize renewed predictions of dilution rates and the size, location, and movement of the plume based on the calibrated models".

This study plan is being submitted to the U.S. Environmental Protection Agency (USEPA) and American Samoa Environmental Protection Agency (ASEPA) to comply with the permit conditions.

APPROACH

The study is divided into two primary tasks:

- Model Verification. The modeling procedures used to establish the ZOM will be evaluated based on data collected during the dye studies and the water quality monitoring program.
- **BOD Impacts.** The effects of BOD (measured BOD₅) in the effluent on DO in the receiving waters will be evaluated.

The general approach to each of the major tasks is described below. A more detailed description of the methods to be used is described in the following section on Study Methods.

Model Verification

The basic approach used in the previous engineering study to determine the required mixing zone dimensions was to: estimate the large-scale, long-term average ambient receiving water concentrations using a wastefield transport model, evaluate initial and subsequent (or secondary) dilution for a range of conditions, and, based on model predictions, determine the appropriate location for the discharge and the required size of the ZOM to comply with American Samoa Water Quality Standards (ASWQS). This approach will be evaluated by running the models for the conditions present during the dye studies and water quality monitoring, as appropriate, and comparing the model results with the observed field data. The three separate subtasks identified above include:

- Wastefield Transport Model. Observed long-term average receiving water concentrations, on a harbor wide scale, for total nitrogen (TN) and total phosphorus (TP) will be based on concentrations observed at each of the water quality monitoring sampling stations. Average loadings of TN and TP to the harbor from the discharge will be calculated for the same period of time. The wastefield transport model will be run using these average loadings and evaluated by comparing the model results to the observed water quality data.
- Initial and Subsequent Dilution Models. The initial and subsequent dilution modeling procedures used to establish the mixing zone boundaries will be evaluated based on the dye study results. Model input will include measured currents, temperature and salinity profiles, and effluent flows present during each dye study. The model results will be compared to the dilutions observed during the dye studies and to previous predictions. The formulation of the effluent limits for ammonia were based on predicted diffuser performance in terms of initial dilution rate and magnitude. The predictions used for this purpose will be specifically evaluated as a part of this subtask.
- Zone of Mixing Location and Size. The ZOM location and dimensions will be re-evaluated if significant discrepancies between predicted and observed TN and TP values occur. Discrepancies will be addressed by recalibration of each model to match the observed data and running the re-calibrated models for a range of conditions representative of the worst case conditions expected in the harbor.

BOD Impacts

BOD impacts on receiving water DO will be evaluated using the same wastefield transport model, or an equivalent model, used to calculate ambient TN and TP concentrations. The impacts will be addressed using the verified (and possibly recalibrated) model discussed above to calculate the potential impacts of cannery effluent on DO levels throughout the harbor. A BOD/DO routine in the model will be used to simulate effects of various BOD loadings from the canneries discharge.

SCHEDULE

Sufficient information was collected from the first dye study to allow the formulation of this study plan. Therefore, the study plan is being submitted prior to the second dye study to facilitate coordination with the eutrophication study, also required as a NPDES permit condition. Coordination of the two studies will benefit both, but particularly assist in doing the eutrophication study. The proposed schedule is to have the report for initial model study finished and delivered to USEPA and ASEPA by May 31, 1994. The first report for the modeling study will include recommendations for subsequent annual reports as required in the permit condition. This schedule is based on the assumptions that the second dye study is carried out near the end of September or beginning of October 1993, and the water quality monitoring data are available by the end of 1993.

STUDY METHODS

This section provides a more detailed description of the approach summarized above. The major features of the methods used will also be discussed. The approach is designed to maintain consistency with the previous studies done to determine the appropriate outfall location and the size of the ZOM. The same models will be used, but the input conditions may be changed to reflect the data collected during the dye studies and the water quality monitoring program. Additional technical details concerning the models and previous model results can be found in the "Engineering and Environmental Feasibility Evaluation of Waste Disposal Alternatives" (CH2M HILL, 1991a), the "Site Specific Zone of Mixing Determination for the Joint Cannery Outfall Project: Pago Pago Harbor American Samoa" (CH2M HILL, 1991c), and the "Environmental Impact Assessment for Joint Cannery Outfall Project, Pago Pago Harbor, American Samoa" (CH2M HILL, 1991d and e).

MODEL VERIFICATION

Numerical model predictions used as the basis for defining the ZOM for the JCO addressed both the long-term effects of the discharge on the TN and TP levels throughout the harbor and the dilution and dispersion associated with initial and subsequent mixing processes in the vicinity of the diffuser. The long-term processes determine the average levels of the effluent constituents in the ambient receiving water of the harbor. These levels must be known to calculate

constituent concentrations resulting from the initial and subsequent dilution processes. The ambient water is the diluting water for the initial dilution process and for an enclosed bay, such as Pago Pago harbor, the ambient concentrations are affected by the effluent discharge levels.

Verification of the previous model predictions will involve verifying predictions of long-term ambient constituent levels compared with levels measured during the water quality monitoring program, verifying initial and subsequent dilution predictions based on dye study results, and re-evaluation of constituent concentrations, if necessary, based on recalibrated models. Brief descriptions of the models used are included in the discussions below and more detailed technical information is referenced. Application of the various models to verify previous predictions and comply with the NPDES permit conditions are described below.

Wastefield Transport Model: Ambient Concentrations

Previous predictions of ambient conditions in Pago Pago Harbor because of the operation of the JCO used a wastefield transport model (PT121). This model is described in more detail in Attachment A and in CH2M HILL, 1991a. The model, developed by CH2M HILL, was based on a model originally developed by HRI (1989) for a wasteload allocation study of Pago Pago Harbor. The results were presented as a series of contour plots of TN and TP concentrations for a range of discharge loadings and alternative outfall sitings.

Water quality, effluent chemistry, flow data and additional oceanographic data collected since the outfall became operational will be used as input to the wastefield transport model. Long-term average TN and TP loadings from the cannery discharges will be calculated based on effluent monitoring data collected by the canneries for a period of at least one year. Loadings from other point sources (e.g. the Utulei Sewage Treatment Plant), nonpoint sources, and open ocean background (a boundary condition) will be estimated from available data. PT121, using the same geometry as used in the previous study (CH2M HILL, 1991a), and as calibrated for the previous study, will be run using the long-term average loadings.

Results will be presented in the form of contour plots of TN and TP throughout the harbor. These predicted concentrations will be compared to long-term average TN and TP levels measured at water quality monitoring stations over the same period of time. For comparison with predicted data, maximum,

minimum and long-term average ambient concentrations will be determined for each of the station locations from quarterly water quality monitoring reports.

The previous model was calibrated for a data set based on discharges in the inner harbor. Some differences between model predictions and measured concentrations of TN and TP are expected. We anticipate the previous model results to be conservative (i.e. overpredict concentrations throughout the harbor). If necessary, the model will be recalibrated for the new location based on the available data. The predictions of the wastefield transport model, recalibrated if necessary, will be used for the re-evaluation of mixing zone location and size and for the BOD/DO evaluation described below.

Initial and Subsequent Dilution Models

Initial and subsequent dilution characteristics of the outfall were previously analyzed using the USEPA models UDKHDEN (Muellenhoff et al., 1985) for initial dilution and CDIFF (Yearsley, 1987) for subsequent dilution processes. The models were used to evaluate the diffuser performance and plume behavior for a range of effluent flow conditions for typical ambient receiving water conditions. The mixing zone characteristics were based on the worst case conditions.

UDKHDEN is a fully three-dimensional model that considers variable profiles throughout the zone of flow establishment and uses a fourth-order integration routine along the centerline of the effluent plume to trace plume position and dilution over time during the rapid initial dilution processes. The model predicts dilution (in terms of mixing with ambient water) and the trapping level of the effluent plume.

CDIFF is a passive diffusion plume model that can be applied following the momentum and buoyancy driven initial dilution process. Diffusion is calculated in the lateral direction only as the plume is advected in the longitudinal direction by ambient currents. The model allows specification of one of three functional forms for the coefficient of lateral eddy diffusivity (as a function of characteristic plume dimension). The model assumes the plume is trapped with a constant vertical extent or fully mixed over the depth of the water column. A constant current is assumed and the model accounts for a solid shoreline boundary parallel to the direction of the current.

The initial and subsequent dilution models will be run based on the as-built diffuser configuration and environmental and flow conditions measured during the dye studies. Input for the initial dilution model, UDKHDEN, will include: diffuser configuration (port size, port depth, and number and spacing of ports), temperature and salinity profiles, current profiles, and effluent flow and density. Temperature and salinity profiles were taken during the dye studies. The profiles taken nearest the diffuser will be used as representative of the conditions during initial dilution. A range of ambient currents will be selected based on the currents measured over the course of the studies. Initial and subsequent dilution model procedures used in the previous study will be repeated for the conditions observed during the dye studies.

Results of the dilution models will be presented as plots or tables of centerline and flux average dilution versus distance from the diffuser. The centerline dilutions observed during the dye studies will be compared to the predicted values. The dilution models are not easily calibrated without changes to the model code. However, a correction factor can be developed that relates model prediction to observation. This is functionally a calibration curve, and serves the same purpose as model calibration for a particular set of conditions. If required, correction or "calibration" factors will be developed and applied to model results. Corrected results will be applied to the re-evaluation of the mixing zone characteristics and the BOD/DO evaluation as described below. In addition, the results will be used to evaluate the effluent limits for ammonia (which are based on a ZID that depends on diffuser initial dilution performance), the predicted trapping level, and the size of the physical ZID.

Evaluation of Mixing Zone

If the difference between the model predictions and field observations for all three model predictions (wastefield transport, initial dilution, and subsequent dilution) is small the dilution models will not be recalibrated and re-evaluation of ZOM size and location will not be required. If it is determined that the model predictions are conservative (i.e. underpredict dilutions or overpredict the TN and TP levels) a qualitative description of the differences will be presented and the models will be recalibrated (or calibration factors developed) for use in the BOD/DO evaluation described below. If there is a significant discrepancy between the model predictions and field observations such that the models overpredict dilutions and underpredict TN and TP concentrations, the models will be recalibrated to minimize the differences between predicted and

observed results and the size and location of the mixing zone will be reevaluated.

Calibration of the wastefield transport model, if necessary, will be accomplished by varying the value of the diffusivity coefficient (K), varying the decay term for the constituent of concern, or a combination of both. The diffusion and decay coefficients can be varied along the longitudinal axis of the harbor. The previous analysis assumed a zero decay and the calibration of the model was based solely on varying K. The model configuration used different values of K for the inner and outer harbor. The dilution models will be calibrated, if necessary, primarily by varying the coefficient of lateral diffusivity in CDIFF and developing calibration factors for UDKHDEN and CDIFF as described above.

BOD/DO EVALUATION

The effects of BOD loadings in the cannery effluent on DO throughout the harbor will be evaluated using PT121, recalibrated if necessary, as described above, or using EPA's water quality model WASP4 (Ambrose et al., 1988). PT121 has been modified to include a routine developed to simulate BOD and DO interactions. The model is formulated for depth averaged applications and is useful for looking at long-term or slowly varying effects averaged through the However, the available information on water column water column. constituents in general (HRI, 1989; CH2M HILL, 1991a) and on dissolved oxygen in particular (CH2M HILL, 1991b) indicates that the water column can best be described as a two or three layer system. This effect is relatively small for TN and TP but may be significant for DO. Therefore, PT121 may be modified, or run in appropriate configurations, to simulate a multilayer system or WASP4 will be used for this evaluation. The decision on which model to use will be based on a review of available data and the extent of modifications required for PT121.

The model will be run for two kinds of simulations: an average long-term simulation such as that done for TN and TP as discussed above and for a representative time history of BOD inputs from the cannery discharges representing a worst case scenario. BOD₅ loadings based on available effluent chemistry data and observed DO levels from available water quality monitoring data will be used to calibrate the model. The horizontal and vertical diffusivities, decay of BOD and utilization of DO, consumption of DO other than by BOD, and re-aeration coefficients will be adjusted to achieve

calibration. Other point and nonpoint sources of BOD will be identified if possible, however this "background" will be generally included as an additional calibration coefficient representing some elevation above open ocean background (included as a boundary condition). The calibrated model will be verified using a separate data set.

The wastefield transport model (PT121 or WASP4) can not be used to evaluate DO impacts within or in the immediate vicinity of the effluent plume. Therefore, results from the initial and subsequent dilution models will be applied to evaluate the nearfield effects within the effluent plume. This procedure will use the results of the wastefield transport model to provide ambient receiving water values as in the case of TN and TP described above. Measurements of immediate dissolved oxygen demand (IDOD) of the combined effluent from both canneries will be made in the field during the second dye study. The measured value of IDOD will be used for evaluation of the effects of BOD in the plume as it mixes with receiving water.

QUALITY ASSURANCE AND QUALITY CONTROL

Quality assurance and quality control will be achieved through use of the accepted and proven models executed by staff familiar with those models. Specific QA/QC measures include: validation, calibration and verification of models with field data, addressing a range of potential conditions where appropriate, sensitivity analyses, and documentation and maintenance of input and output files generated during modeling activities. A significant portion of the modeling effort is directed at keeping a high level of confidence in the predictions of the models. The purpose and scope of this effort and a description of the techniques that will be used are described below. There is often confusion and misunderstanding about the technical terminology used in this process. To avoid confusion the functions described as validation, calibration, and verification are defined below.

The purpose of the QA/QC effort is to provide a high level of confidence that the models are providing physically realistic predictions. There are two efforts required: first, it is important that the model configuration developed for the harbor be calibrated and verified (tested against site specific data) and, second, it is just as important that the basic model code be based on sound physical assumptions (the underlying science and mathematical formulation are accurate reflections of reality).

Validation. The models employed in the study are mathematical representations of physical processes. The mathematical equations used are solved numerically (approximate solutions) using a digital computer. It is important that this process, which is considerably removed from the actual physical processes and behavior of the harbor, accurately simulate what happens in the harbor. The process of validation uses representative parameters for simplified system configurations to determine if the predictions reflect reality. The process of validation begins as the initial model computer code is written and continues as long as the model code is used. It is particularly important that any changes in model code be checked for validity. The final element of validation is a determination of how sensitive a model is to changes in input parameters. An extremely sensitive model probably does not provide results with a high confidence level. Sensitivity checks will be carried out for each of the models for potentially critical parameters.

Calibration. Most numerical models of the type used here contain coefficients (e.g. friction factors, diffusion coefficients) that are often study site specific. Although there are generally accepted values for these coefficients, the range observed in nature is high and the models can be somewhat sensitive to the values selected. The process of calibration uses measured values of forcing functions and responses to determine the appropriate coefficients for the model configuration at the study site. Typically a set of field data, say water level, will be measured and the appropriate coefficient, in this case friction factor, will be varied until the model results match the observed results for the observed forcing function and model geometry.

In the case of the initial dilution model and, to a lesser extent, the subsequent dilution model, it may be inappropriate to modify the original model code. These models are intended for general use by EPA and consistency is an important consideration. In this case it is more appropriate to develop a correction factor or calibration curve to be applied to the results of the model. This process is similar to the development of calibration curves routinely developed for instrument read-outs or data measurements.

Verification. It is possible to "force" a model to reproduce observed results by means of calibration. Successful calibration does not necessarily mean that the model is operating correctly under other conditions. Verification is a check that utilizes an observed data set independent from the one used for calibration. Typically the calibrated model is run under different environmental conditions,

say loadings of TN from the discharges, and the response of the model, in this case TN concentrations at selected points in the harbor, is compared to observed concentrations at those points. Verification, combined with validation and sensitivity determination, provides a high level of confidence that the model is simulating the system under a range of conditions.

Model Code Modifications. Model code modifications may be required for a variety of reasons. No modifications are planned for the primary algorithms except for possible revisions to PT121 as described above. Some minor changes in program structure to increase ease of use will probably be done. All model code changes will be documented and tested.

DATA ANALYSIS AND PRESENTATION

A report documenting the results of all analyses will be presented to EPA and ASEPA. The report will include summaries of all input data, modeling procedures, model calibration and verification, and model results. All pertinent model results and output files (as appropriate) will be reproduced as an appendix to the report. Model results will be presented both in tabular form and graphically (i.e. contour plots) as appropriate. The report will include: an executive summary; an introduction describing the background, rationale, and general approach of the study; a description of the methods used including model formulation and input data; a description of the model results; an evaluation of the model validity for predicting dilution and plume characteristics; an evaluation of the ZOM characteristics; and an evaluation of BOD impacts.

REFERENCES

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Muellenhoff, W. P., et al., 1985. "Initial Mixing Characteristics of Municipal Ocean Discharges: Volume I, Procedures and Applications". EPA-600/3-85-073a. U.S. Environmental Agency, Office of Research and Development. November 1985.

Yearsley, John, 1987. "Diffusion in Nearshore and Riverine Environments". EPA 901-9-87-168. U.S. Environmental Protection Agency.

ATTACHMENT A

PT121 Model Description

PT121 is based on the HARBOR model used for the Wasteload Allocation Study (HRI, 1989). The wasteload allocation study should be referenced for more information on the basic physical principles and model approach.

PT121 is a quasi-two-dimensional (Q2D) completely stirred tank reactor (CSTR) model. The term Q2D refers to the following model attributes:

- It is a two-dimension horizonal approach that is depth-averaged. There is no variation of any variable with depth. However, the depth does vary throughout the harbor model. It is not a constant-depth model.
- The model is set up in a grid that is laterally symmetric about the longitudinal axis of the model. The longitudinal axis is transformed into a straight line.
- The model grid is set up in two levels. Square cells of constant dimension are used for the calculation of concentrations and transport in both horizontal directions. Rectangular "line cells" are composed of integral numbers of cells in a line perpendicular to the harbor axis. These line cells form the basis for calculating total flow rates in the longitudinal direction and the input of nonpoint source flows and pollutant loading.
- Lateral advective flows are symmetrical about the longitudinal axis, and there is no advection across the longitudinal axis. These flows are calculated on the basis of mass conservation. Longitudinal advective flows are equally divided between individual cells in a line cell, with the provision of no flow through a solid boundary.
- Flow rates are on the basis of changes in volume due to tidal elevation changes. The water surface is considered to change instantaneously throughout the system. Tides are input in tabular form. Thus, longitudinal flows are calculated on the basis of conservation of mass.
- Point source flows and loadings are added to individual cells.
 Nonpoint source flows and loadings are added to line cells and are equally distributed to cells within the line cell.

- Diffusion coefficients and decay rates can vary along the longitudinal axis of the system but are constant within a line cell. Diffusion is the same in both horizontal directions.
- Diffusive transport is calculated as a Fickian process based on eddy diffusivity. This transport is calculated on a cell-by-cell basis with no transport allowed through a solid boundary.

The term CSTR refers to the following model approach to calculating concentration:

- The total mass of a constituent is calculated from the concentration and cell volume for each cell.
- On the basis of tidal data, the volume of the cell is changed.
- Advective transport is allowed to carry mass to and from adjoining cells on the basis of the concentration, flow rate, length of the time step, and area between the cells. The area is based on the average depth of the two cells and cell width.
- Diffusive transport carries mass between cells on the basis of concentration gradient, area between adjoining cells, and the length of the time step.
- Point source loadings are introduced into appropriate cells. Point source flows are also introduced into individual cells. The mass of constituent and volume of water are based on loadings, flows, and length of the time step.
- Nonpoint source inputs are calculated the same way as point source inputs, but each cell in a line cell has equal inputs.
- The original mass in each cell is allowed to decay on the basis of the specified first order decay constant and the length of the time step.
- Each of the inputs and outputs of mass into each cell is added to the initial mass less the amount of decay, and a new concentration is calculated.

PT121 is run by supplying the required instructions and parameters by means of input files read by the program as it executes. The model is written and compiled in TurboBasic on an IBM-compatible computer operating under

MSDOS. The input is in four separate files. The job control file provides input for:

- Input/output file names
- Size of model grid (number of cells)
- Time step length
- Horizontal cell dimension
- Where to start reading from tide data file
- Number of days to do calculations
- Number of point sources considered
- Amount of tidal data to be read
- Input/output control parameters
- Cells where point source loadings are found
- Point source loadings and flows

The hydrodynamics file provides input for cross-sectional area, width, and nonpoint source flows as a function of distance along the harbor (for each line cell).

The tidal data file provides input for tidal elevation as a function of time in tabular format. The water quality/geometry data file provides input for the following parameters and variables:

- Initial concentration as a function of distance along the harbor, and boundary concentration at the open end of the harbor.
- Eddy diffusion coefficient as a function of distance along the harbor.
- Decay rate coefficient as a function of distance along the harbor.
- Nonpoint source loading as a function of distance along the harbor.
- Definition of the cells constituting the side boundaries of the system.
- Depth of each cell at the appropriate tidal elevation.
- Definition of the boundary condition for each of the boundary cells of the system.

The model results are provided in three optional output files as specified in the job control input file. These files are described below, and example output to a printer is shown. The files consist of a "mirror file" that primarily presents

the input, a hydrodynamics file that provides results of the flow calculations, and a water quality output file that provides the results of the transport calculations.

The mirror file provides a listing and tabulations of the input values read and initially manipulated by the program. The primary function of this file is to provide documentation and allow the operation of the program to be checked. The file is generally used for validation runs and is switched off during production runs. The mirror file has the following parts:

- A title page that provides a description of the important program and model control parameters
- A summary of hydrodynamic and geometric data
- A tabulation of the tidal data used by the routine
- A tabulation of water quality inputs including initial concentrations, diffusivity and decay coefficients, and loadings
- A tabulation of cell depths that are input in feet and converted to meters
- A table of boundary conditions. The significance of the various boundary conditions can be determined by reference to the model code

The hydrodynamics file is also generally used for program validation and is switched off during production runs. This file contains a tabulation for each time step of the change in volume, flow rate, cross-sectional area, and velocity for each line cell or line cell boundary.

The water quality output file gives a description of the concentration at the end of each time step in each cell. The output interval for both the hydrodynamics and water quality output files can be specified if each time step is not desired.

StarKist Seafood, Inc.

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February 04, 2005

Mr. Carl L. Goldstein U. S. EPA Region 9 Pacific Insular Area Program (CMD-5) 75 Hawthorne Street San Francisco, CA 94105

Mr. Peter Peshut, Director, ASEPA Office of the Governor EOB Utulei, American Samoa 96799

Gentlemen:

Re: Discharge Monitoring Report for the Months of October, November and December of 2004, under NPDES No. AS0000019 as issued to Star Kist Samoa, INC.

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of October, November and December of 2004.

Star Kist Samoa met all Effluent limits.

Sincerely

Lance Ihaka

Manager, Engineering and Maintenance

LI \ ls : \ npdes \samoa

Attachments: cc: Mr. Alan Ota

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.

Mr. Phil Thirkell

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

NAME	STAR KIST SAMOA, Inc	
ADDRESS	P. O. BOX 368	
	PAGO PAGO AMERICAN SAMOA 96799	

(2-16)
AS000019
PERMIT NUMBER

(17-19) 001 DISCHARGE NUMBER

MONITORING PERIOD FACILITY YEAR MO DAY YEAR MO DAY LOCATION FROM 2004 10 01 2004 10 31 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31) NOTE: Read instructions before completing this form. PARAMETER (3 Card Only) QUANTITY OR LOADING (4 Card Only) QUALITY OR CONCENTRATION FREQUENCY SAMPLE NO. OF ANALYSIS TYPE (32-37)(46-53) (54-61) (38-45) (46-53) (54-61) EX 30-DAY DAILY 30-DAY DAILY AVERAGE MUMIXAM MINIMUM AVERAGE MAXIMUM UNITS (62-63) (64-68) (69-70) SAMPLE 0 MEASUREMENT 1.059849 1.740288 Continuous Recorder PERMIT **FLOW** 2.9 REQUIREMENT mgd SAMPLE 426.3 426.3 426.3 0 Once/Month MEASUREMENT Composite PERMIT BOD5 N/A N/A N/A REQUIREMENT mg/l SAMPLE 840.3 970.9 58.7 66.7 78.7 MEASUREMENT Once/Week Composite PERMIT TSS 2996 7536 lbs/day N/A N/A N/A mg/l REQUIREMENT SAMPLE MEASUREMENT 131.3 162.9 8.2 10.4 12.6 Once/Week Grab (2) PERMIT **OIL & GREASE** 763 1907 lbs/ day N/A N/A N/A REQUIREMENT mg/l SAMPLE MEASUREMENT 158.4 177.6 9.8 12.1 14.1 One Set/Month (3) Composite PERMIT **TOTAL PHOSPHORUS** REQUIREMENT 192 .309 lbs/day N/A N/A N/A mg/l SAMPLE 979.2 1143.3 63.0 74.7 85.0 0 MEASUREMENT One Set/Month (3) Composite **PERMIT TOTAL NITROGEN** 1200 N/A N/A N/A REQUIREMENT 2100 lbs/day mg/l SAMPLE 25.8 0 MEASUREMENT 21.3 31.5 Once/Week Composite PERMIT N/A N/A 133 TOTAL AMMONIA REQUIREMENT mg/l CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED NAME / TITLE PRINCIPAL EXECUTIVE OFFICER TELEPHONE DATE AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIG-NIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

LANCE IHAKA

TYPE OR PRINTED

Manager, Engineering and Maintenance

THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND

and or maximum imprisonment of between 6 month and 5 years)

33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000

NUMBER

YEAR

AREA

CODE

SIGNATURE OF PRINCIPAL EXECUTIVE

OFFICER OR AUTHORIZED AGENT

MO

DAY

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

 Facility Name/Location if different)

 NAME
 STAR KIST SAMOA, Inc

 ADDRESS
 P. O. BOX 368

(2-16) AS0000019 PERMIT NUMBER

001 DISCHARGE NUMBER

(17-19)

FACILITY:
LOCATION:

PAGO PAGO AMERICAN SAMOA 96799

| MONITORING PERIOD | | YEAR | MO | DAY | YEAR | Y

177					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Re	ad instructions before comple	ting this form.
PARAMETER			TY OR LOADING		, , , , , , , , , , , , , , , , , , , ,	ALITY OR CONCENTRA			NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)	1	EX	OF ANALYSIS	TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE										, , , , , ,
	MEASUREMENT					83	93		0	Continuous	Continuous
	PERMIT		Terminal manager			goodwales 177	Add for the months				
TEMPERATURE	REQUIREMENT					90	95	°F	HE TO SERVE OF SERVE		
	SAMPLE										Ì
	MEASUREMENT				6.6		7.2		0	Continuous	Continuous
;	PERMIT										dela della d
рН	REQUIREMENT	性組織的			6.5		8.6	STD/UNITS		and the Carlotte State of the	To be the state of
	SAMPLE					1					
	MEASUREMENT		E SERVICE NAME OF THE PROPERTY.			<10	<10		0	Once/Month	Composite
TOTAL 000000	PERMIT								574		
TOTAL COPPER	REQUIREMENT	LIGHT STATE OF			90 - 10 TEACHER 1	66	108	µg/L	ROKE-MINE TO A	er in Bergeley (Bigger)	
	SAMPLE					229.0	229.0		<u>ا</u>	O/M	Composito
	MEASUREMENT					229.0	229.0	1		Once/Month	Composite
TOTAL ZINC	PERMIT REQUIREMENT					1545	1770	μg/L		magazine ne diss	
TOTAL ZING	SAMPLE	magazia kielida z				1979	Talkag Mark (1936) F. F. F. S. Hands	pg/L	Jagrad V., R. 1 [5]		1
	MEASUREMENT										
	PERMIT		ABONE SET ME (FL.)			S20740 P					MAY SALES AND SALES
	REQUIREMENT								300		
	SAMPLE		333								
	MEASUREMENT		1								
	PERMIT								487		
	REQUIREMENT										
	SAMPLE										
	MEASUREMENT							_			
	PERMIT				100						
<u> </u>	REQUIREMENT							é	\$55 P.S.		
AME/TITLE PRINCIPAL EXECUTIVE		AND AM FAMILI ON MY INQUIR' OBTAINING THI IS TRUE, ACCU NIFICANT PENA	AR WITH THE INF Y OF THOSE INDIV E INFORMATION. I RATE AND COMPI LLTIES FOR SUBM	ORMATION IDUALS IN BELIEVE LETE. I AM ITTING FA	I HAVE PERSONAL N SUBMITTED HER MMEDIATELY RESF THE SUBMITTED IN I AWARE THAT THE LLSE INFORMATION MENT SEE 18 U.S.C.	EIN AND BASED PONSIBLE FOR NFORMATION ERE ARE SIG- N INCLUDING	R		TEL	EPHONE DATE	
Manager, Engineering and M					es may include fine:		SIGNATURE OF PRINCIPAL E	XECUTIVE	AREA		
TYPE OR PRINTED					6 month and 5 years	•	OFFICER OR AUTHORIZED A		CODE	NUMBER YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

OF

Wastewater Summary Report for the month of October 2004

					Max			Oil &C	rease	T	ss	Т	Р	Т	'N	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1	579.4973	1.540481	318.2	14.8	84	6.7	6.8										
2		0.937127	133.3	5.5	84	6.7	6.8						:				
3		0.892832	223.6	8.6	78	6.7	6.7										
4	596.5150	1.452208	279.5	15.5	82	6.7	6.7										
5	562.1198	1.554855	447.2	16.0	83	6.7	6.9	12.6	162.9	62.7	810.7	13.6	175.9	69.0	892.2	21.3	426.3
6	572.7830	1.603120	537.5	14.7	84	6.7	6.8					12.6	168.0	78.0	1039.9		
7	579.8738	1.546715	481.6	14.6	84	6.7	6.7										
8	578.7893	1.520196	516.0	15.0	82	6.7	6.8										
9		0.614832	111.8	3.8	85	6.7	6.8										
10		0.348958	30.1	1.3	80	6.7	6.7										
11	SHUT DOWN	0.249038	68.8	1.8	78	6.7	6.7										
12	SHUT DOWN	0.260403	17.2	1.4	77	6.7	6.7										
13	SHUT DOWN	0.171441															
14	SHUT DOWN	0.389968	51.6	0.6	77	6.7	6.7										
15	SHUT DOWN	0.291448	55.9	1.9	75	6.7	6.7										
16	SHUT DOWN	0.321668	34.4	2.3	80	6.7	6.7										
17		0.777147	202.1	9.5	78	6.7	6.7										
18	612.5515	1.582068	412.8	15.5	83	6.7	7.1										
19	607.1345	1.587948	464.4	16.1	83	6.7	7.2										
20	613.9560	1.514796	352.6	15.3	86	6.7	6.9	10.3	129.7	58.7	739.4	14.1	177.6	74.0	932.2	31.5	
21	601.0283	1.740288	485.9	16.3	85	6.6	7.1					11.7	169.3	79.0	1143.3		
22	599.3550	1.382761	326.8	11.3	86	6.8	6.7										,
23		0.631094	124.7	4.3	85	6.7	6.7										
24		0.761971	219.3	9.1	78	6.7	6.7										
25	607.8058	1.506344	378.4	15.1	85	6.7	6.8										i
26	607.6443	1.483492	498.8	16.1	82	6.7	6.9	8.2	101.2	78.7	970.9	9.8	120.9	63.0	777.2	24.6	
27	582.6775	1.542908	408.5	15.0	87	6.7	6.8				:	10.8	138.6	85.0	1090.6		
28	607.6160	1.642363	365.5	14.6	85	6.7	6.8										
29	595.8423	1.428895	348.3	14.2	86	6.7	6.9										
30		0.573209	141.9	4.1	93	6.7	6.8										
31		1.004731	172.0	6.5	80	6.7	6.7			,							
TOT	9505.1894	32.855305	8208.7	300.8					393.8		2521.0		950.3		5875.4		
AVG	594.0743	1.059849	273.6	10.0	83			10.4	131.3	66.7	840.3	12.1	158.4	74.7	979.2	25.8	426.3

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

NAME STAR KIST SAMOA, Inc
ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

(2-16)
AS0000019
PERMIT NUMBER

001 DISCHARGE NUMBER

(17-19)

FACILITY
LOCATION

FROM 2004 11 01 TO 2004 11 30

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: R	ead instructions before completin	·
PARAMETER		(3 Card Only) QUANTIT	Y OR LOADING		(4 Card Only) Q	UALITY OR CONCENT	RATION		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)	·	(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY	DAILY MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(02-03)	(64-68)	(69-70)
	MEASUREMENT	1.191486	1.669439						0	Continuous	Recorder
	PERMIT	1.191400	1.009439	7			HOROGRAPHICA TO THE X-111 C		24.828.90	19850 WANDARA CHARA	A STATE OF THE
FLOW	REQUIREMENT		2.9	mgd					2000		
T LOW	SAMPLE		The continuous Annual State Continuous	ingu	To the control of the				Audi Millione Name	sandamasi ere imagili riya nebeliah riwanineli an damper misindi. Fe	ADSMIRADINE SAMEAN DESTRUCTION
	MEASUREMENT				442.0	442.0	442.0		0	Once/Month	Composite
	PERMIT				772.0	172.0	142.0				
BOD5	REQUIREMENT	Assessed to the second			N/A	N/A	N/A	mg/l	200		
BOD3	SAMPLE		Political designation of the second	01	- William Company of the Company of	Encount interestants - ATALL NO. 24 VI	P-SCHOOL CROSSAGE ST. T DESCRIPT	1119/1	230 000 2	83, W. S. Jan J. P. Store St. 2004 (2017) 177 (1937) 344 Sept. 2004 (1937)	3250 Med by 100 million (100 Med 100 M
	MEASUREMENT	1092.4	1443.6		59.3	83.2	105.3		0	Once/Week	Composite
	PERMIT	1002.4	7440.0	1.5		discontinuo de la continuo de la co			"Productions"		Jerste Martine
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l			
100	SAMPLE	CHANGE AND CHEST AND	Y feeth are with 1 A at 10 to	loorady						A A A STENCE SHOULD BE A SHELL SHOW SHOW SHOW SHOW SHOW SHOW SHOW SHOW	A STATE OF STREET
	MEASUREMENT	290.7	545.8		12.4	22.3	40.8		10	Once/Week	Grab (2)
	PERMIT	200.7			Established Services				Heriotek man	Market Son Stripped Paretty (22 Stocker	
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l	200	TransferRall maybe for the	
0,2 0, 0,12,102	SAMPLE		- J. 100000000000000000000000000000000000			SALES AND ASSESSED & TV ASSESSED AND ASSESSED AND ASSESSED ASSESSED.	SCHOOLS (- Adjarancy -	Wilder of an artifalty off and artifalty and artifalty	2 - ye. 142 08 285 - 1417 31 case.
	MEASUREMENT	152.9	182.3		10.7	11.7	13.3		0	One Set/Month (3)	Composite
	PERMIT		Protection and	E.					Pagadions.		
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l			
	SAMPLE	4 1000 2000 COL T. T. T. 1000 COLORS	- Man An HANNA - The Call Control of the Call	AIR THE TOTAL OF T	TO SHOW THE THE TAX TO SHOW TH		San Activities Annual Control of Control				THE PARTY OF THE P
	MEASUREMENT	935.4	1220.1		55.0	71.5	89.0		0	One Set/Month (3)	
	PERMIT						11.76.00		Hants	- Regulate at the east to come better	
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l		graf a e n grandske filosofia e andreae	7
	SAMPLE	The state of the s	CONTRACTOR OFFICE AND ADDRESS		5 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -						
	MEASUREMENT				26.0	30.6	36.3		0	Once/Week	Composite
	PERMIT		1,000								
TOTAL AMMONIA	REQUIREMENT				N/A	N/A	133	mg/l			
NAME / TITLE PRINCIPAL EXECUTIVE OFF	and the second s	I CERTIFY UNDE	R PENALTY OF	LAW THAT	I HAVE PERSONAL	LY EXAMINED	To provide the second s		JE	LEPHONE DATE	
		AND AM FAMILIA	AR WITH THE INI	FORMATION	N SUBMITTED HER	EIN AND BASED			-		
					MMEDIATELY RESI						
					THE SUBMITTED IN AWARE THAT THE		l ///				
		1			LSE INFORMATION						
LANCE IHAKA					ENT SEE 18 U.S.C						
Manager, Engineering and Ma	aintenance				es may include fine		SIGNATURE OF PRINCIPAL EX	CECUTIVE	AREA		
TYPE OR PRINTED		and or maximun	imprisonment o	of between (6 month and 5 year	s)	OFFICER OR AUTHORIZED AG	ENT	CODE	NUMBER YEAR	MO DAY

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

Facility Name/Location if different)

NAME

ADDRESS

FACILITY

LOCATION

STAR KIST SAMOA, Inc.

P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

(2-16)AS0000019 PERMIT NUMBER

001 DISCHARGE NUMBER

(17-19)

MONITORING PERIOD YEAR MO YEAR МО DAY DAY 2004 11 01 2004 11 30 FROM TO

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Re	ad instructions before complet	ing this form.
PARAMETER		(3 Card Only) QUANTIT	Y OR LOADING		(4 Card Only) QU	ALITY OR CONCENTR	ATION		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY	DAILY			30-DAY	DAILY				
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE			1		86	92			0	0
	MEASUREMENT	Council (Add Shake)	2-14-15-15-16-15-16-16-16-16-16-16-16-16-16-16-16-16-16-			80	92		0	Continuous	Continuous
TEMPERATURE	PERMIT	7.00 (10 to 10 to					A-	۰F			
TEMPERATURE	REQUIREMENT		4.55			90	95	F	THE PARTY	* Contract C	
	SAMPLE						7.4				
	MEASUREMENT		SALANDER AND TO THE PARTY OF TH		6.5	AMERICAN TURBURE	7.1	-	0	Continuous	Continuous
l	PERMIT						CONTRACTOR OF THE PARTY OF THE		15,000		Arrive Edition
pH	REQUIREMENT	为政治技术的企业	This has		6.5		8.6	STD/UNITS			
	SAMPLE	1			:						
	MEASUREMENT					<100	<100	1		Once/Month	Composite
	PERMIT	Senting to the sent of the sen				量医肾 多红斑				ana Terraban	rest: "Table 1
TOTAL COPPER	REQUIREMENT		4 美			66	108	μg/L			
	SAMPLE							l	1		
İ	MEASUREMENT					319.0	319.0		0	Once/Month	Composite
	PERMIT										
TOTAL ZINC	REQUIREMENT					1545	1770	μg/L			
	SAMPLE										
	MEASUREMENT							1			
	PERMIT				TANK					Mares I Book	
	REQUIREMENT						MERCHANICA -				
	SAMPLE										
	MEASUREMENT						1				
	PERMIT								757200		
	REQUIREMENT					725-13-7			7		
	. SAMPLE									gerral money of the state of th	
İ	MEASUREMENT										
	PERMIT										ANTERVALDE
	REQUIREMENT								100000		
NAME/TITLE PRINCIPAL EXECUTIVE		I CERTIFY UNDE	R PENALTY OF L	AW THAT	I HAVE PERSONAL	LY EXAMINED		·	TEL	EPHONE DATE	784070 to 7 th 76 0000 1-1 vys
		AND AM FAMILIA	AR WITH THE INF	ORMATIO	N SUBMITTED HER	EIN AND BASED					
		1			MMEDIATELY RESI						
					THE SUBMITTED II						
		1 '			AWARE THAT THE						
LANCE IHAK	^	1			LSE INFORMATION MENT SEE 18 U.S.C		/				
Manager, Engineering and Mai					es may include fine		SIGNATURE OF PRINCIPAL E	YECITIVE	AREA		
TYPE OR PRINTED	mondific	.			5 month and 5 year		OFFICER OR AUTHORIZED A		CODE	NUMBER YEAR	MO DAY
THE ON THINKED		Tana or maximum	priodimidit di	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	und o year				3055		1 JA:

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

The result for Total Copper was reported as <100µg/L because the sample had to be diluted as per our Contract Lab AECOS.

OF

					Max			Oil &0	Grease	T	SS	1	Р	Т	N	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff_mg/l	mg/l
1	610.5258	1.406286	296.7	14.0	86	6.7	6.9										
2	588.3810	1.450707	344.0	15.5	87	6.7	7.0	20.0	241.3	59.3	715.4	11.4	137.5	78.0	941.0	27.9	
3	612.7988	1.626669	356.9	14.0	88	6.7	6.9					12.2	165.0	56.0	757.5		
4	607.0838	1.669439	374.1	14.6	87	6.7	6.8										
5	609.9733	1.410376	296.7	14.7	86	6.7	6.8										
6		0.690582	94.6	3.4	83	6.7	6.8										
7		0.851038	240.8	9.8	81	6.7	6.8										
8	605.2205	1.566398	318.2	16.2	85	6.7	6.8										
9	621.6713	1.541516	442.9	16.1	86	6.7	7.1	12.4	159.0	66.0	846.1	11.5	147.4	87.0	1115.3	32.1	442.0
10	613.2793	1.621124	348.3	12.8	87	6.7	6.8					11.6	156.4	65.0	876.3		
11	613.1593	1.664801	404.2	10.8	87	6.7	6.8										
12	605.6630	1.360281	313.9	10.0	90	6.7	6.7										
13		0.544226	167.7	5.1	92	6.7	6.7										
14		0.686544	193.5	7.0	81	6.7	6.7										
15	599.2345	1.283616	382.7	12.6	88	6.7	6.7										
16	532.1450	1.544449	365.5	12.9	86	6.7	6.8										
17	614.2910	1.648565	455.8	13.3	88	6.7	6.8	15.8	216.6	105.3	1443.6	13.3	182.3	89.0	1220.1	36.3	
18	606.5595	1.587084	412.8	13.8	86	6.6	6.8					11.3	149.1	55.0	725.9		
19	604.1455	1.485307	425.7	13.1	88	6.7	6.8										
20		0.578550	107.5	3.7	92	6.7	6.7										
21		0.774675	167.7	4.7	82	6.7	6.7										
22	589.9853	1.246785	378.4	11.2	84	6.7	6.9										
23	621.3363	1.608613	455.8	13.4	87	6.7	6.9	40.8	545.8	102.0	1364.5	11.3	151.2	80.0	1070.2	26.0	
24	604.6660	1.507315	382.7	12.5	89	6.7	6.7					10.7	134.1	62.0	777.2		
25		0.524016	120.4	3.0	92	6.7	6.7										
26		0.274225	120.4	2.2	81	6.7	6.7										
27		0.256140	51.6	2.6	83	6.5	6.7										
28		0.614796	223.6	5.1	82	6.7	6.8										
29	598.3435	1.240768	421.4	13.7	85	6.7	6.8										
30	613.2495	1.479675	374.1	11.9	88	6.7	6.8		,								
тот	12071.7122	35.744566	9038.6	313.7					1162.7		4369.6		1223.0		7483.5		
AVG	603.5856	1.191486	301.3	10.5	86			22.3	290.7	83.2	1092.4	11.7	152.9	71.5	935.4	30.6	442.0

					Max			Oil &C	Grease	Т	SS	ר	Р	Т	N.	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1	609.9440	1.444468	425.7	10.8	87	6.7	6.9	6.2	74.5	72.0	864.9	12.6	151.4	83.0	997.0	44.7	
2	599.8235	1.322733	477.3	10.7	87	6.7	6.8					13.0	143.0	79.0	869.0		
3	613.6518	1.337513	382.7	10.3	89	6.7	6.8							·			
4		0.591517	133.3	2.9	93	6.7	6.7										
5		0.596218	146.2	4.9	83	6.7	6.7										
6	612.1935	1.262055	391.3	10.6	83	6.6	6.7										
7	616.9473	1.388232	490.2	10.4	83	6.7	6.8			·							
8	625.5140	1.456886	417.1	8.9	84	6.7	6.8	43.8	530.7	258.0	3125.8	13.4	162.3	84.0	1017.7	36.2	417.0
9	611.2063	1.477541	412.8	10.4	85	6.7	6.7					13.4	164.6	73.0	897.0		
10	610.7975	1.358193	391.3	10.0	85	6.7	6.7										
11		0.513391	129.0	2.5	90	6.7	6.7										
12		0.973080	270.9	5.4	82	6.6	6.7										
13	613.3830	1.303752	356.9	9.8	86	6.7	6.9										
14	609.6345	1.560054	399.9	10.5	85	6.7	6.9										
15	612.2618	1.490690	369.8	10.4	87	6.6	6.8	39.9	494.6	110.7	1372.3	12.4	153.7	69.0	855.4	39.7	
16	615.2848	1.491643	430.0	10.3	84	6.7	6.7					13.6	168.7	61.0	756.7		
17	614.9005	1.307206	348.3	9.0	84	6.7	6.7										
18		0.448052	111.8	2.6	91	6.5	6.7										
19		0.239575	38.7	0.7	80	6.7	6.7										
20	SHUT DOWN	0.210287	60.2	0.8	82	6.7	6.7										
21	SHUT DOWN	0.191178	25.8	0.9	79	6.7	6.7										
22	SHUT DOWN	0.197206	25.8	0.6	80	6.7	6.7										
23	SHUT DOWN	0.176535	8.6	0.6	82	6.5	6.5										
24	SHUT DOWN	0.128539															
25	SHUT DOWN	0.145792			84	6.7	6.7										
26	SHUT DOWN	0.190603	38.7	2.2	83	6.5	6.7										
27	SHUT DOWN	0.207779	51.6	0.8	86	6.5	6.7										
28	SHUT DOWN	0.296596	34.4	1.5	86	6.6	6.7										
29	SHUT DOWN	0.262262	12.9	0.5	84	6.7	6.8										
30	SHUT DOWN	0.196309	55.9	1.2	80	6.7	6.7										
31	SHUT DOWN	0.276759	47.3	0.9	80	6.7	6.8	<u> </u>									
TOT	7965.5425	24.042644	6484.4	161.1					1099.8		5363.0		943.7		5392.8		
AVG	612.7340	0.775569	223.6	5.6	85			30.0	366.6	146.9	1787.7	13.1	157.3	74.8	898.8	40.2	417.0

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc ADDRESS P. O. BOX 368 PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

(2-16)AS0000019 PERMIT NUMBER

(17-19)001 DISCHARGE NUMBER

Form Approved OMB No. 2040-0004 Expires 3-31-88

FACILITY LOCATION

MONITORING PERIOD МО DAY YEAR МО DAY YEAR 2004 31 2004 12 01 FROM TO

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: R	ead instructions before completi	ng this form.
PARAMETER		(3 Card Only) QUAN	TITY OR LOADING		(4 Card Only) QUA	ALITY OR CONCENTRATIO	N		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY	DAILY				1				
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE							1			
	MEASUREMENT	0.775569	1.560054						0	Continuous	Recorder
	PERMIT							l	1/15/00		
FLOW	REQUIREMENT		2.9	mgd							
	SAMPLE										
	MEASUREMENT			1	417.0	417.0	417.0	ļ	0	Once/Month	Composite
	PERMIT								252		Albair State (Fifth Section)
BOD5	REQUIREMENT				N/A	N/A	N/A	mg/l	OFFER S	•	
BOD3	SAMPLE	2-047-11082921079-03400990	ACCOUNT OF THE ACCOUN		(連びなな社団の)です。 1. 大体機能		A CONTROL OF ALL ST.		XE IIX EDWARD	Acres No. 1 me No. 10 acres and decidence	HON THE WASHINGTON IN YOUR WAR
		1787.7	3125.8		72.0	146.9	258.0		0	Once/Week	Composite
}	MEASUREMENT	1707.7	3123.0		72.0	140.9		ł	3 1 1 1 2 1 3	Oncerveer.	Togethanical 4 biseless
T00	PERMIT		4500	Un - (-1			NI/A	/I		- 197 July 1971	
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l	CHARLES CO.	APPARATE THE TREE SECTION	TV MEDINE ESTIMATION STATE
	SAMPLE						40.0				
	MEASUREMENT	366.6	530.7	_	6.2	30.0	43.8	i	0	Once/Week	Grab (2)
	PERMIT				The Land				2010000		
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l	375		
	SAMPLE										
	MEASUREMENT	157.3	168.7		12.4	13.1	13.6		0	One Set/Month (3)	Composite
	PERMIT		District Control					Ì	Silvering in	SSELDENAL DE LA	
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l		•	
	SAMPLE	d selectional control				Self-deligned as and assessment () demonstration or	production of the control of the con			C. C. C. C. C. C. C. C. C. C. C. C. C. C	
	MEASUREMENT	898.8	1017.7		61.0	74.8	84.0		0	One Set/Month (3)	Composite
	PERMIT	000.0									STATES OF ACTOR STATES
TOTAL NITROGEN	REQUIREMENT	1200	2100	ibs/day	N/A	N/A	N/A	mg/l			
TOTAL NITROGEN	advantage to the property of a section of the secti	1200	2100	ibəruay	, wa	I NIA		1119/1	rewninSept3);	n and agree has been and an array of the	
	SAMPLE				26.0	40.0	11.7			Ones Mask	Commonito
	MEASUREMENT	id with infliguition basis of AUX 5 of the STATE K.	- 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	20	36.2	40.2	44.7		0	Once/Week	Composite
	PERMIT							١.,			
TOTAL AMMONIA	REQUIREMENT				N/A	N/A	133	mg/l	35.50G	《京學學·中華·斯·斯·特里斯特的第三人称形式	
NAME / TITLE PRINCIPAL EXECUTIVE OFF	CER				VE PERSONALLY EX				TE	LEPHONE DATE	
					BMITTED HEREIN AN						
					DIATELY RESPONSIE						
					SUBMITTED INFORM ARE THAT THERE AR		/				
					INFORMATION INCL						
LANCE IHAKA					SEE 18 U.S.C. 1001						
Manager, Engineering and M	Maintenance				ay include fines up to		SIGNATURE OF PRINCIPAL EX	ECUTIVE	AREA		
TYPE OR PRINTED		- ·	mprisonment of be		•		OFFICER OR AUTHORIZED AG		CODE	NUMBER YEAR	MO DAY

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

Facility Name/Loc	ation if different)	
NAME	STAR KIST SAMOA, Inc	
ADDRESS	P. O. BOX 368	
	PAGO PAGO AMERICAN SAMOA 96799	

(2-16)AS0000019 PERMIT NUMBER

(17-19)001 DISCHARGE NUMBER

FACILITY	
LOCATION	

YEAR MO DAY YEAR MO	MONITORING PERIOD YEAR MO DAY YEAR MO DAY											
	DAY											
2004 12 01 TO 2004 12	31											

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Rea	ad instructions before comple	ting this form.
PARAMETER		(3 Card Only) QUANTITY (OR LOADING		(4 Card Only) QU	ALITY OR CONCENTRATION	N		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
						30-DAY	DAILY				
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE					85	93		0	Cantinuana	Continuous
	MEASUREMENT				** a. 100 5 100 5 mail 100 5 100 50	00	93	-	T. 42 4.6 (3.5 T.)	Continuous	Conunuous
	PERMIT										新疆 罗克里亚
TEMPERATURE	REQUIREMENT				A CHAIRM	90	95	°F	7578 KG -		
]	SAMPLE										Ì
	MEASUREMENT				6.5		6.9		0	Continuous	Continuous
	PERMIT						(1) 医神经神经				MANAGEMENT CONTRACTOR
pН	REQUIREMENT				6.5		8.6	STD/UNITS			***
	SAMPLE									Andrew Control of the	
	MEASUREMENT					15.0	15.0		0	Once/Month	Composite
	PERMIT	NEEDS TO SEE SEE				10.0	10.0		553398		Outpoolie
TOTAL CORDER	The second secon					66	108	/1			
TOTAL COPPER	REQUIREMENT				74-52-2-2-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-	00	100	µg/L	(SEE 13	COSTON ASSOCIATION	
	SAMPLE	1									
	MEASUREMENT	AND DESIGNATION OF THE PARTY OF	pour de la fix d		Salata Like as Complement of the Market	242.0	242.0	_	0	Once/Month	Composite
	PERMIT										
TOTAL ZINC	REQUIREMENT	harries and the second				1545	1770	μg/L	SETTING.		
	SAMPLE										
	MEASUREMENT								ĺ		
	PERMIT					CHARLES SERVICE	PARTICIPATE OF THE				
	REQUIREMENT						36.5		177		
	SAMPLE				And the second s	N 18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	April 10 mars of the Control of the	1	3145 4 50 70 FG		
	1							-			
İ	MEASUREMENT	3.0 (160)05.04 (160)07.05	C Water No. Selfanor Well Color of Colors					-	- www.data.com		
	PERMIT										AND THE ED
	REQUIREMENT							<u> </u>	100000	A SEE STEEL STEEL	
	SAMPLE										
	MEASUREMENT										
	PERMIT										
	REQUIREMENT								2 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
NAME/TITLE PRINCIPAL EXECUTIVE		I CERTIFY UNDER	R PENALTY OF LAW	THAT I HA	AVE PERSONALLY EX	AMINED			TEL	EPHONE DATE	
		AND AM FAMILIA	R WITH THE INFOR	MATION SI	UBMITTED HEREIN AI	ND BASED					
		1			EDIATELY RESPONSI				l		
		1			SUBMITTED INFORM						
					VARE THAT THERE A						
LANCE IHAK	^	1			E INFORMATION INCL						
Manager, Engineering and Ma					T SEE 18 U.S.C. 1001 nay include fines up to		SIGNATURE OF PRINCIPAL E	YECITINE	AREA		
TYPE OR PRINTED	inchance	-	imprisonment of be			C \$ 10,000	OFFICER OR AUTHORIZED A		CODE	NUMBER YEAR	MO DAY
TIPE OR PRINTED		Tand or maximum	imprisonnent of be	CHECH O III	ondrand byears)		TOT THER OR AUTHORIZED A	JE111	LOOPE	TOTAL TOTAL	, mo DAT

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

OF

2

Starkist Samoa.inc.



A Division of Starker For

P.O. Pox 35% Hage Page. Tressland in the Areerican Sareur, reulis

Telephone: 6 M (n. 15) Fourimile (48) (4), is

Mr. Carl L. Goldstein U. S. EPA Region 9 Pacific Insular Area Program (CMD-5) 75 Hawthorne Street San Francisco, CA 94105

Dr. Toafa Vaiaga'e Director, AS EPA Office of the Governor EOB Utulei, American Samoa 96799

Gentlemen:

Re: Discharge Monitoring Report for the Months of January, February and March of 2005, under NPDES No . AS0000019 as issued to Star Kist Samoa, INC.

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of January, February and March of 2005.

Star Kist Samoa met all Effluent limits except for the Total Zinc.

The Total Zinc exceeded the Daily Maximum and the 30-Day Average limits for the month of January 2005.

Sincerely

Lance Ihaka

Manager, Engineering and Maintenance

LI \ ls : \ npdes \samoa

Attachments: cc: Mr. Alan Ota

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.

Mr. Phil Thirkell

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

NAME	STAR KIST SAMOA, Inc	
ADDRESS	D O BOY 368	

PAGO PAGO AMERICAN SAMOA 96799

(2-16) AS0000019 PERMIT NUMBER

(17-19)001 DISCHARGE NUMBER

FACILITY LOCATION

MONITORING PERIOD YEAR МО DAY YEAR МО DAY 2005 01 01 2005 01 31 FROM TO

- COCATION			-		(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: R	ead instructions before complet	ng this form.
PARAMETER		(3 Card OnlY) QUANT	ITY OR LOADING		(4 Card Only) QU	ALITY OR CONCENTR	RATION		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE										
	MEASUREMENT	1.217294	1.629668	_					0	Continuous	Recorder
FLOW	PERMIT REQUIREMENT		2.9	mgd							
	SAMPLE MEASUREMENT				375.1	375.1	375.1		0	Once/Month	Composite
BOD5	PERMIT REQUIREMENT			E- 	N/A	N/A	N/A	mg/l			•
	SAMPLE MEASUREMENT	1659.8	1875.7		106.7	138.7	158.0		0	Once/Week	Composite
TSS	PERMIT REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l	100 Hz 100 Hz 200 Hz	•	
	SAMPLE MEASUREMENT	405.6	713.5		11.8	33.9	60.1		0	Once/Week	Grab (2)
OIL & GREASE	PERMIT REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l			•
	SAMPLE MEASUREMENT	144.3	175.1		7.9	12.0	15.2		0	One Set/Month (3)	Composite
TOTAL PHOSPHORUS	PERMIT REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l		.	
	SAMPLE MEASUREMENT	814.9	1031.8		43.0	67.9	85.0		0	One Set/Month (3)	Composite
TOTAL NITROGEN	PERMIT REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l	2018 TO 1		
	SAMPLE MEASUREMENT				18.4	27.5	43.1		0	Once/Week	Composite
TOTAL AMMONIA	PERMIT REQUIREMENT				N/A	. N/A	133	mg/l			
AME / TITLE PRINCIPAL EXECUTIVE OF	FICER				HAVE PERSONAL			,	TE	LEPHONE DATE	
LANCE IHAKA	-	ON MY INQUIRY OBTAINING THE IS TRUE, ACCUPATION OF THE INCOME.	OF THOSE IND INFORMATION. RATE AND COMP LTIES FOR SUB	IVIDUALS IN I BELIEVE PLETE. I AM MITTING FA	N SUBMITTED HER MMEDIATELY RESP THE SUBMITTED IN AWARE THAT THE LSE INFORMATION IENT SEE 18 U.S.C.	ONSIBLE FOR IFORMATION ERE ARE SIG- I INCLUDING	Ju				
Manager, Engineering and Ma	intenance	-			es may include fines i month and 5 years		SIGNATURE OF PRINCIPAL EX		AREA CODE	NUMBER YEAR	MO DAY

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

NAME	STAR KIST SAMOA, Inc	
ADDRESS	P. O. BOX 368	
	PAGO PAGO AMERICAN SAMOA 96799	

(2-16)
AS000019
PERMIT NUMBER

(17-19)
001
DISCHARGE NUMBER

DAY

31

(20.24)

			MONITORING PERIOD								
FACILITY:		YEAR	MO	DAY		YEAR	MO				
OCATION:	FROM	2005	01	01	TO	2005	01				
		(20.24)	(22.22)	(24.25)		(26,27)	(28 20)				

						(24-25)	(26-27) (28-29)	(30-31)				
PARAMETER		(3 Card Only) QUANTI	TY OR LOADING		(4 Card Only) QU	ALITY OR CONCENTRA	ATION		NO. FREQUENCY		SAMPLE	
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE	
						30-DAY	DAILY					
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)	
	SAMPLE											
	MEASUREMENT		ļ			85	91	_	0	Continuous	Continuous	
	PERMIT	45-4-11					A. 14 (1870, 187		2.1	n kalan sa Audalas	March Charles	
TEMPERATURE	REQUIREMENT		25.75 19.75 76.254 18.7		TO AND POST OF	90	95	°F	87-87			
	SAMPLE											
	MEASUREMENT				6.5		7.1		Ιo	Continuous	Continuous	
	PERMIT	97 Selection 25 12	84 1 1 35 85 2 1 3 1 4 4 4				and the said of the said of the said	1	Page 1	STATE A VISIT OF THE		
рН	REQUIREMENT	40.5			6.5	43	8.6	STD/UNITS	Triada.			
рп		100 his 100 his type 12 - 50	المناه ١٠٠٨ وهيره ١ المن والمنا		0.0	Mercanistati 19. ASS planta esta esta	a completely of O medical	O I D/OITITO	11.151-0	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	286 289 2 1 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2	
	SAMPLE					ND	ND	Į.	0	Ones (Massh	Commonito	
	MEASUREMENT	with the second			769 - 154907 18 11 11 11 11 11 11	ND	ND	-1	<u> </u>	Once/Month	Composite	
	PERMIT	I i and a second						۱ .	170			
TOTAL COPPER	REQUIREMENT	LOST & ACRES DE LA FERENCIA				66	108	μg/L	- 1		Signification in the last section in	
	SAMPLE						İ					
	MEASUREMENT					2650.0	2650.0		1	Once/Month	Composite	
	PERMIT	Pet Marine Repu			Arminist Asis				4.462.00		LUCKBUR 256 (As	
TOTAL ZINC	REQUIREMENT					1545	1770	μg/L	STAN	**************************************	No. 1985 Part of	
	SAMPLE											
	MEASUREMENT	İ										
	PERMIT		489589M874575				Gregory's Manageria, e.g.	1	18962-17	新春春 148 新春 11 M		
	REQUIREMENT									Partition of the second		
	SAMPLE	1187 (#2.100, 1.1. 1.1. 1.1. 1.1. A.	- The state of the		***************************************	5 7 34	Chocaran in addition			Liza and a second		
	MEASUREMENT	9.3790-61	2 - C - C - C - C - C - C - C - C - C -		we in the work of both of	STREET, SANCEAS		-1	7.755.5	raki wakiba 186 saniisa	Ar au INDIA	
	PERMIT						Acres of the	E				
	REQUIREMENT	1561.J# J#17 (\$778)2527	armanon at MAR			The state of the s	AND AND AND AND AND AND AND AND AND AND	1	2 10		100 100 100 m (A) 100 AO	
	SAMPLE											
	MEASUREMENT	- 15	25 a. mar. 100 a. m. 11 minut 100		2014 - 1 mile - 2011 - 2	6275788 34. TST-85. 11		-		l i a a a a a a a a a a a a a a a a a a	7 (7 (7 (1 (1 (1 (1 (1 (1 (1 (
	PERMIT	Sant water							100 Co.			
	REQUIREMENT						All the significance		10.5°C			
ME/TITLE PRINCIPAL EXECUTIV	E OFFICER				I HAVE PERSONAL				TE	LEPHONE DATE	,	
					N SUBMITTED HER		ر ا	/	1			
0/					MMEDIATELY RESP		1	See See See See See See See See See See	1			
					THE SUBMITTED IN AWARE THAT THE		1/1	A STATE OF THE STA				
					ALSE INFORMATION		1100					
LANCE IHAK	Δ				MENT SEE 18 U.S.C							
Manager, Engineering and M					es may include fine		SIGNATURE OF PRINCIPAL E	EXECUTIVE	AREA			
TYPE OR PRINTED					6 month and 5 years		OFFICER OR AUTHORIZED A		CODE	NUMBER YEAR	MO DAY	
TIPE OR PRINTED		Tana di maninani	pcommon or		Line - Joure				1			

					Max			Oil &	Grease	T	SS	1	Р	Т	N .	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits.	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	<u>Hi</u>	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1		0.278922	81.7	0.9	83	6.5	6.7										
2		0.775108	197.8	3.9	85	6.7	6.7										
3	557.2800	1.253489	270.9	8.7	83	6.6	6.8										
4	532.6008	1.427580	305.3	8.4	83	6.7	6.9	60.1	713.5	158.0	1875.7	12.8	152.0	53.0	629.2	28.7	
5	583.4735	1.431084	344.0	8.5	85	6.6	6.7					14.6	173.8	78.0	928.3		
6	605.0485	1.550337	421.4	8.5	86	6.7	6.7										
7	599.1893	1.397563	382.7	6.5	84	6.7	6.8										
8		0.781913	197.8	2.8	86	6.7	6.7										
9		0.693666	184.9	2.4	85	6.7	6.8										
10	603.1910	1.252648	365.5	6.5	84	6.7	6.9										
11	596.0980	1.382392	309.6	7.5	82	6.7	6.7										
12	565.5468	1.385361	356.9	6.9	89	6.7	6.8	35.9	413.6	142.0	1635.9	15.2	175.1	82.0	944.7	43.1	
13	590.3975	1.371158	322.5	7.2	86	6.6	7.0					13.8	157.4	64.0	729.8		
14	579.7310	1.342771	352.6	7.1	89	6.7	6.7										
15		0.581099	180.6	2.7	86	6.7	6.7										
16		0.874089	129.0	3.4	84	6.7	6.9										
17	611.0308	1.525342	361.2	8.3	86	6.7	6.9										
18	559.1000	1.414421	541.8	9.3	82	6.7	6.9										
19	568.6908	1.481516	305.3	8.9	86	6.7	7.0	28.5	351.1	148.0	1823.4	11.7	144.2	64.0	788.5	18.4	
20	593.4555	1.528492	425.7	11.3	86	6.6	6.9					11.1	141.1	74.0	940.6		375.1
21	574.9550	1.473795	339.7	15.4	85	6.7	6.9										
22	524.5850	1.535471	438.6	14.5	86	6.6	7.1										
23		0.983208	236.5	8.8	87	6.7	6.7										
24	481.5155	1.629668	335.4	15.2	85	6.7	6.7										
25	459.1985	1.470691	503.1	16.6	86	6.7	6.9	11.8	144.3	106.7	1305.0	7.9	96.6	43.0	525.9	19.7	
26	473.4810	1.459738	541.8	14.3	86	6.7	6.9					9.4	114.1	85.0	1031.8		
27	470.8665	1.508539	399.9	15.9	87	6.7	7.0										
28	620.0353	1.370070	331.1	13.9	91	6.7	7.1										
29		0.522368	193.5	6.1	84	6.7	6.8										
30		0.694551	215.0	6.1	82	6.7	6.7										
31	583.4260	1.359057	258.0	11.0	87	6.7	6.9										
тот	12332.8963	37.736107	9829.8	267.5					1622.9		6639.1		1154.3		6518.8		
AVG	560.5860	1.217294	317.1	8.6	85			33.9	405.6	138.7	1659.8	12.0	144.3	67.9	814.9	27.5	375.1

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368
PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

(2-16)
AS000019
PERMIT NUMBER

(17-19) 001 DISCHARGE NUMBER

DAY

28

Form Approved
OMB No. 2040-0004
Expires 3-31-88

| FACILITY | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TROM | TRO

					(20-21) (22-23)	(26-27) (28-29)	(30-31)					
PARAMETER		(3 Card Only) QUANTI	TY OR LOADING		(4 Card Only) Q	UALITY OR CONCENT		NO.	FREQUENCY	SAMPLE		
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE	
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)	
	SAMPLE	AVERAGE	MIAXIMON	011113	MANAGAL	AVERAGE	WAXIWOW	01113	(02-03)	(04-00)	(09-70)	
	MEASUREMENT	0.914996	1.848557						0	Continuous	Recorder	
	PERMIT			4		\$ (a. 144) B:						
FLOW	REQUIREMENT		2.9	mgd					1 32		•	
1	SAMPLE											
	MEASUREMENT				344.2	344.2	344.2		0	Once/Month	Composite	
	PERMIT		42.00								a a sistema a care	
BOD5	REQUIREMENT			4	N/A	N/A	N/A	mg/l				
	SAMPLE					-						
	MEASUREMENT	1239.0	1483.7		78.0	98.0	126.7		0	Once/Week	Composite	
	PERMIT								2. 22			
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l	1235			
	SAMPLE			1						M		
	MEASUREMENT	296.3	700.3		4.9	24.8	59.8		0	Once/Week	Grab (2)	
	PERMIT	nd her maketa	4.38.6.767	-		Seeki saa sa sab	1 000 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A 1 A		- C		8,445,411,411,411	
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l	ta sign			
	SAMPLE								 		W 135 14 17 X 1 203 1 1 1	
	MEASUREMENT	135.7	153.7		9.9	10.7	11.5		10	One Set/Month (3)	Composite	
	PERMIT								15624.18			
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l			ú	
	SAMPLE				7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8			<u>-</u>	- C.L. (10.1)			
	MEASUREMENT	284.8	408.1		12.0	23.0	37.0		0	One Set/Month (3)		
	PERMIT		Responsible Control	27	161 458 MARKET 1.1.		Barran Barran		Salas :	PYA 1 - A 1 - A 2 - A 2		
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l	4.75			
	SAMPLE			1						<u> </u>		
	MEASUREMENT				13.8	21.1	25.5		0	Once/Week	Composite	
	PERMIT	1.1. 2.4.4.2.38		1			23.5			Onocriteck	Oomposite	
TOTAL AMMONIA	REQUIREMENT				N/A	N/A	133	mg/l	19 (1 H) 14 (1 H) (1 H)	n e		
NAME / TITLE PRINCIPAL EXECUTIVE OF		I CERTIFY UNDE	R PENALTY OF	LAW THAT	I HAVE PERSONAL		100	1119/1	TE	LEPHONE DATE		
LANCE IHAKA Manager, Engineering and Ma	aintenance	ON MY INQUIRY OBTAINING THE IS TRUE, ACCUP NIFICANT PENA THE POSSIBILIT 33 U.S.C. 1319 (F	OF THOSE INDI INFORMATION. RATE AND COMF LTIES FOR SUBM Y OF FINE AND I	VIDUALS IN I BELIEVE PLETE. I AM MITTING FA MPRISONM Trese statute	N SUBMITTED HERI MMEDIATELY RESP THE SUBMITTED IN AWARE THAT THE LSE INFORMATION IENT SEE 18 U.S.C. SE may include fines	PONSIBLE FOR IFORMATION ERE ARE SIG- I INCLUDING 1001 AND Is up to \$10,000	SIGNATURE OF PRINCIPAL EX		AREA			
TYPE OR PRINTED		and or maximum	imprisonment o	r between 6	month and 5 years	5)	OFFICER OR AUTHORIZED AG	ENT	CODE	NUMBER YEAR	MO DAY	

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME

FACILITY

LOCATION

STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368 PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019 PERMIT NUMBER

(17-19) 001 DISCHARGE NUMBER

MONITORING PERIOD YEAR МО DAY YEAR MQ DAY 01 2005 02 28 FROM 2005 02 TO (20-21) (22-23) (24-25) (26-27)(28-29) (30-31)

PARAMETER		(3 Card Only) QUANT	TY OR LOADING		(20-21) (22-23) (4 Card Only) QU	ALITY OR CONCENTR	RATION		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	мімімим	30-DAY AVERAGE	DAILY MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE MEASUREMENT					85	94		0	Continuous	Continuous
TEMPERATURE	PERMIT REQUIREMENT					90	95	°F			,
	SAMPLE MEASUREMENT				6.7		7.1		0	Continuous	Continuous
рН	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS	30650 2045		•
	SAMPLE MEASUREMENT					10.0	10.0		0	Once/Month	Composite
TOTAL COPPER	PERMIT REQUIREMENT					66	108	μg/L			
	SAMPLE MEASUREMENT					173.0	173.0		0	Once/Month	Composite
TOTAL ZINC	PERMIT REQUIREMENT					1545	1770	μg/L			
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT				A 1			2 2 2			
	SAMPLE MEASUREMENT	:									
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
LANCE IHAK, Ianager, Engineering and Mai	A	AND AM FAMILI ON MY INQUIR OBTAINING THE IS TRUE, ACCU NIFICANT PENA THE POSSIBILIT 33 U.S.C. 1319 (AR WITH THE INF Y OF THOSE INDIVE EINFORMATION. I RATE AND COMPI LITIES FOR SUBM TY OF FINE AND IN Penalties under th	ORMATION IDUALS IN BELIEVE LETE, I AM ITTING FA MPRISONN ese statute	I HAVE PERSONAL N SUBMITTED HERI MMEDIATELY RESP THE SUBMITTED IN I AWARE THAT THE LSE INFORMATION LENT SEE 18 U.S.C. ES may include fines The month and 5 years	EIN AND BASED CONSIBLE FOR IFORMATION ERE ARE SIG- I INCLUDING 1001 AND s up to \$10,000	SIGNATURE OF PRINCIPAL E		AREA CODE	NUMBER YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Form Approved

OMB No. 2040-0004

Expires 3-31-88

					Max			Oil &0	Grease	T	SS	T	Ъ	Т	'N	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1	591.2128	1.697495	348.3	13.4	82	6.7	6.9										
2	578.8225	1.751439	408.5	14.8	85	6.7	6.8	4.9	71.4	89.3	1300.7	9.9	144.2	14.0	203.9	25.5	
3	586.5510	1.848557	365.5	12.7	86	6.7	6.8					10.0	153.7	19.0	292.1		
4	562.7283	1.487788	348.3	14.2	86	6.7	6.8										
5		0.587036	129.0	4.3	87	6.7	6.7										
6		0.302955	107.5	1.9	84	6.7	6.7										
7	SHUT DOWN	0.198754	60.2	2.1	89	6.7	6.7										
8	SHUT DOWN	0.274173	51.6	0.6	81	6.6	6.7										
9	SHUT DOWN	0.191826	73.1	1.7	84	6.7	6.7										
10	SHUT DOWN	0.250883	25.8	0.6	82	6.7	6.7										-
11	SHUT DOWN	0.200675	60.2	2.0	80	7.1	7.1										
12	SHUT DOWN	0.405889	137.6	2.8	83	6.7	6.7										
13		0.834410	137.6	5.9	81	6.7	6.8										
14	589.3863	1.211390	283.8	10.8	84	6.7	7.1										
15		0.317341	81.7	1.8	85	6.7	6.7										
16		0.137177	81.7	1.9	81	6.7	6.7										
17		0.773255	236.5	7.0	82	6.7	6.7										
18	602.3428	1.408184	378.4	9.7	84	6.7	6.9	59.8	700.3	126.7	1483.7	11.2	131.2	27 .0	316.2	13.8	
19	582.8113	1.326327	365.5	11.2	86	6.7	6.9					11.5	126.9	37.0	408.1		
20		0.567104	129.0	3.9	94	6.7	7.0										
21		0.759936	202.1	6.4	85	6.7	6.8										
22	590.1088	1.334580	335.4	10.9	87	6.7	6.9										
23	589.0223	1.603466	356.9	12.8	88	6.7	6.9										
24	576.9828	1.437726	412.8	13.0	88	6.7	6.9	9.8	117.2	78.0	932.6	11.4	136.3	29.0	346.7	24.1	344.2
25	551.8790	1.420507	498.8	14.3	88	6.7	6.9					10.3	121.7	12.0	141.8		
26	575.6465	1.244615	468.7	12.0	89	6.7	6.7										
27		0.903958	249.4	8.1	88	6.7	6.8										
28	563.7820	1.142452	331.1	9.2	88	6.7	7.1										
TOT	7541.2764	25.619898	6665	176					888.9		3717.0		814.0		1708.8		
AVG	580.0982	0.914996	238	7.5	85			24.8	296.3	98.0	1239.0	10.7	135.7	23.0	284.8	21.1	344.2

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

Facility Name/Location if different)											
NAME	STAR KIST SAMOA, Inc										
ADDRESS	P. O. BOX 368										
	PAGO PAGO AMERICAN SAMOA 96799	_									

AS0000019 PERMIT NUMBER

(17-19)001 DISCHARGE NUMBER

DAY

31

MONITORING PERIOD YEAR MO DAY YEAR МО FACILITY 2005 03 01 2005 03 FROM TO LOCATION (24.25)

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: R	Read instructions before comple	ting this form.
PARAMETER		(3 Card Only) QUAN	TITY OR LOADING	(4 Card Only) QU	ALITY OR CONCENTRA	TION		NO.	FREQUENCY	SAMPLE	
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY	DAILY								
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE										
	MEASUREMENT	1.210035	1.681876	_					0	Continuous	Recorder
	PERMIT	11.30		18 18		Rust Local Herod				Marian and Alexander	Mayden was a
FLOW	REQUIREMENT	AL ARALANTES	2.9	mgd							ye Takki 🦊 Maria
	SAMPLE										
	MEASUREMENT				319.0	319.0	319.0		0	Once/Month	Composite
	PERMIT			8					3.0		
BOD5	REQUIREMENT				N/A	N/A	N/A	mg/l	1.00		3 4 4 8 4 4 1 1 1 1
	SAMPLE										
	MEASUREMENT	1163.8	1556.7		66.7	92.4	120.7		0	Once/Week	Composite
	PERMIT	4, 3, 3, 3, 3, 3, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,		W.		Referencia de la composición del composición de la composición de la composición del composición de la composición del composición de la composición de la composición de la composición de la composición de la composición del composición del composición del composición del composición del composición del composición del composición del composición del composición del com	14 Land Ser (1984 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985 - 1985		1 View	Language Parallina	age. Agilt food Armed I
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l			
9444444	SAMPLE		T. Zone West State .			Cys. 10. 10. 11. 11. 11.					
	MEASUREMENT	215.9	495.1		4.6	16.7	35.4		0	Once/Week	Grab (2)
	PERMIT	144 x 1550 14 11			24244 - 131V (*	8715-3451 - 8-25682)			33%		
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l	1,24,2		
OIL & OILLAGE	SAMPLE	4 200 300	I SHEDS ALOUT	ibor day	Research Strategies	N 1988 , SEACH 1986		mg/i			
	MEASUREMENT	138.3	166.1		9.7	11.1	13.6		0	One Set/Month (3)	Composite
	PERMIT	130.3	100.1	-	3.7		10.0		7 1 484	One Septional (S)	Composite
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l			A
TOTAL PHOSPHOROS		132	303	ibs/day	N/A	WA	\$ 12.55 do 19.00 10.00 50 50 50	1119/1	- MASSES OF TO	The state of the s	Colorador Reprintador de Calendario de Calen
	SAMPLE	0100	1007.4		400	CE 4	04.0			0 0 (/11 /1 /0)	
	MEASUREMENT	810.0	1067.4	124	16.0	65.1	84.0		0	One Set/Month (3)	Composite
TOTAL NUTBOOKS	PERMIT			A				,,	1 Box		Maria de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	N/A_	N/A	mg/l	Tanta x	Land "T. S.T. "SARiya	
	SAMPLE			1							
	MEASUREMENT			_	19.7	26.6	32.6		0	Once/Week	Composite
	PERMIT			id.					2.45	Market Carlotte	
TOTAL AMMONIA	REQUIREMENT			3	N/A	N/A	133	mg/l	1575	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
NAME / TITLE PRINCIPAL EXECUTIVE OF	FICER	⊣			VE PERSONALLY EXA				TE	LEPHONE DATE	
	_				BMITTED HEREIN AN		/		1		
	A STATE OF THE STA				DIATELY RESPONSIB		0/	ALL PARTY OF THE P			
	A STATE OF THE STA				SUBMITTED INFORM/ ARE THAT THERE AR		11/2/	and the same of th			
					INFORMATION INCLU						
ANCE IHAKA		1			SEE 18 U.S.C. 1001 A						
Manager, Engineering and M	Maintenance	33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,0					SIGNATURE OF PRINCIPAL EX	ECUTIVE	AREA		
TYPE OR PRINTED		and or maximum i	mprisonment of be	etween 6 mor	nth and 5 years)		OFFICER OR AUTHORIZED AG	ENT	CODE	NUMBER YEAR	MO DAY

FACILITY LOCATION NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR) Form Approved OMB No. 2040-0004 Expires 3-31-88

NAME	STAR KIST SAMOA, Inc	
ADDRESS	P. O. BOX 368	
	PAGO PAGO AMERICAN SAMOA 96799	

(2-16)
AS0000019
PERMIT NUMBER

(17-19) 001 DISCHARGE NUMBER

I	MONITORING PERIOD											
Ī	YEAR	MO	DAY		YEAR	MO	DAY					
FROM:	2005	03	01	TO	2005	03	31					

LOCATION				FROM:	(20-21) (22-23) (24-25) (26-27) (28-29) (30-31)				NOTE: Read instructions before completing this form.				
PARAMETER		(3 Card Only) QUANTITY (T	JALITY OR CONCENTRAT			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE		
(32-37)		(46-53)	(54-61)		(38-45)	(46-53) 30-DAY	(54-61) DAILY		EX	OF ANALTSIS	1172		
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)		
	SAMPLE MEASUREMENT					86	94		0	Continuous	Continuous		
	PERMIT								- 23				
TEMPERATURE	REQUIREMENT				1 2 3 X	90	95	°F	5 000	1.71.30	" NASSO A		
	SAMPLE										l		
	MEASUREMENT		ļ		6.6	Dad Sharin Periodia	7.4	-	0	Continuous	Continuous		
	PERMIT		The parties of a make of a supplemental and a suppl						300				
рН	REQUIREMENT	100000000000000000000000000000000000000	a sedecario di separa i Mali		6.5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8.6	STD/UNITS	- N 3.		1 - 2 br - gran de Euro (120 - 120 -		
	SAMPLE MEASUREMENT					10.0	10.0		0	Once/Month	Composite		
	PERMIT		A SA SA SA SA SA SA SA SA SA SA SA SA SA		49 C - 51 S - 11 to 18 ph (5 to				1.54	Children and St. St.	SLIVE ASSESSED.		
TOTAL COPPER	REQUIREMENT					66	108	μg/L	13.0				
11000	SAMPLE												
	MEASUREMENT					276.0	276.0		0	Once/Month	Composite		
	PERMIT												
TOTAL ZINC	REQUIREMENT					1545	1770	μg/L			•		
	SAMPLE												
	MEASUREMENT							2			-JE		
	PERMIT								1.453				
	REQUIREMENT				2 2 4 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2				1517 PARTY				
	SAMPLE												
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	PERMIT REQUIREMENT												
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			THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000					EXECUTIVE	AREA				
TYPE OR PRINTED			imprisonment of bet		•		OFFICER OR AUTHORIZED		CODE	NUMBER YEAR	MO DAY		

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

2

					Max			Oil &C	Grease	T	SS	Т	P	Т	N	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1	582.9538	1.388126	430.0	12.0	90	6.7	6.8										
2	599.8428	1.455979	438.6	14.1	87	6.7	6.9	19.8	239.7	66.7	808.6	9.7	117.4	16.0	193.7	26.1	
3	576.3218	1.491550	464.4	13.9	87	6.7	6.9					11.4	141.4	25.0	310.1		
4	595.3400	1.400997	399.9	10.1	91	6.7	6.8										
5		0.497137	227.9	4.3	84	6.7	6.8										
6		0.685252	210.7	5.0	83	6.7	6.7										
7	602.5268	1.277701	344.0	9.9	87	6.6	6.7										
8	602.4293	1.518378	425.7	12.6	89	6.7	6.7										
9	591.9420	1.527978	391.3	15.8	90	6.7	6.9	6.9	87.7	70.0	889.5	10.0	127.1	84.0	1067.4	25.9	
10	583.6498	1.570299	356.9	14.9	88	6.7	7.0					11.0	143.6	81.0	1057.7		
11	581.0620	1.499723	335.4	12.5	89	6.7	6.8										
12		0.560780	150.5	4.7	90	6.7	6.8										
13		0.745717	270.9	6.1	86	6.7	6.7										
14	587.7953	1.380869	490.2	14.4	83	6.7	6.8										
15	563.7240	1.453376	425.7	14.7	87	6.7	6.8										
16	587.8870	1.467064	391.3	14.3	89	6.7	6.8	4.6	56.1	93.3	1138.3	11.9	145.2	82.0	1000.4	28.7	319.0
17	590.6963	1.452379	404.2	16.2	88	6.7	6.8										
18	580.0195	1.349416	374.1	14.8	94	6.7	6.8					11.2	125.7	78.8	884.3		
19		0.657945	172.0	5.4	84	6.7	6.8										
20		0.763355	180.6	6.5	80	6.7	6.9										
21	613.3155	1.299951	331.1	12.4	88	6.7	6.9										
22	591.2328	1.681876	404.2	13.3	88	6.7	7.0	35.4	495.1	111.3	1556.7	11.9	166.1	75.0	1049.0	19.7	
23	610.4705	1.537061	387.0	12.3	88	6.8	7.0					10.5	134.2	66.0	843.6		
24	606.8343	1.245867	292.4	8.1	92	6.8	6.9										
25		0.580933	120.4	3.2	80	6.8	6.9										
26		0.323024	38.7	1.1	80	6.7	6.7										
27		0.709757	193.5	5.6	82	6.7	6.9										
28	587.8130	1.628239	399.9	12.0	81	6.7	7.2										
29	568.7043	1.420456	421.4	11.7	81	6.7	7.4	17.0	200.8	120.7	1425.8	13.6	160.7	83.0	980.4	32.6	
30	570.3583	1.429869	451.5	12.9	81	6.7	6.9					10.2	121.2	60.0	713.4		
31	601.5560	1.510019	434.3	12.6	82	6.8	7.0										
тот	12976.4751	37.511073	10358.7	327.4					1079.4		5818.9		1382.6		8100.0		
AVG	589.8398	1.210035	334.2	10.6	86			16.7	215.9	92.4	1163.8	11.1	138.3	65.1	810.0	26.6	319.0

American Samoa Joint Cannery Outfall

COS Samoa Packing StarKist Samoa

ANALYSIS OF PROPOSED NPDES PERMIT CONDITIONS

The discussions below describe the differences between the existing NPDES permit and the rationale for proposing these changes. Many of the proposed sections are based on informal discussions with EPA staff. The technical justifications are based on the results of the studies done under the existing permit.

<u>Proposed Section A (Existing Section A):</u> EFFLUENT LIMITS AND MONITORING REQUIREMENTS

Discharge limitations will be based on permit application data and discussions with EPA. Numerical limits are not included in the proposed permit conditions at this time. Proposed monitoring frequencies are discussed below.

BOD₅ monitoring is reduced to monthly, since a large database has been established. Based on the existing data EPA may decide to institute a numerical limitation or drop the monitoring. There is a dissolved oxygen (DO) water quality standard, which argues for a limitation, or at least monitoring. There have been no violations of this standard, which argues for dropping the monitoring and relying on the receiving water monitoring. Initial dilutions of over 100:1 result in little chance of violations.

<u>Suspended solids and oil & grease</u> monitoring is reduced to weekly from twice per week. This is based on the established database. EPA may be reluctant to do this, but it appears reasonable.

<u>Total ammonia</u> is maintained at weekly monitoring. Any observed toxicity in the effluent would most likely be caused by ammonia. Thus, reductions in ammonia monitoring are unlikely.

<u>Total phosphorous and total nitrogen</u> monitoring is reduced to one set of samples (two in a given week) per month. The receiving water monitoring indicates no violations, even within the mixing zone. However, the option for additional monitoring is allowed (as always) to address potential daily spikes that, although below the daily maximum limitation, would unduly bias the monthly average limitation. The potential shift to a weighted-average approach is retained, although it was not instituted in the existing report. This point requires further consideration.

Zinc and copper monitoring is proposed to be monthly. This is based on the database that has been established. Copper was added to the list. Zinc was increased from semi-annual to monthly. Both of these parameters will require mixing zones, and monthly monitoring appears reasonable.

<u>Cadmium, chromium, lead, and mercury</u> monitoring is dropped. There were no limitations for these metals and monitoring was to determine if limitations are required. Based on the data, the effluent has been in compliance for these parameters.

It may be that the dissolved fraction of metals, rather than the total should be monitored in the future. This needs to be clarified with EPA.

<u>Proposed Section B (Existing Section B):</u> DISCHARGE SPECIFICATIONS

This section was revised only to eliminate monitoring station 17 for reasons described in detail in Section E below. The location of this station adjacent to the closest coral reef to the discharge argues against removing it. However, monitoring at other nearby stations, and the ability of ASEPA or EPA to restore this station if any concerns arise, argue that it is unnecessary. This station is particularly difficult to sample in a safe fashion because of its location next to a reef that is relatively well exposed to ocean waves. Safety considerations argue against retaining it since the existing data shows no potential for non-compliance.

Proposed Section C (Existing Section C): PROTECTED AND PROHIBITED USES

This section remains the same, unless there are changes in the American Samoa water Quality Standards (ASWQS) that need to be reflected here by EPA.

<u>Proposed Section D (Existing Section D):</u> TOXICITY

1. <u>Effluent Biomonitoring.</u> A number of changes were made to this section to reflect the current procedures that have been previously approved by EPA. These include:

The starting date was extended (90 to 180 days) to keep the current series of test in sequence with future tests regardless of the start date of the permit.

The reference to the guidance document was updated.

The previously approved substitute species was included.

The dilution range was made more general to be consistent with current practice.

The relaxation of holding times and sample preservation was recognized to reflect the logistics encountered in American Samoa.

The use of a single composite sample was formalized to be consistent with current practice.

EPA and ASEPA should have no problems with these changes, since they have already been approved. The statistical methods required need to be reviewed more carefully to make sure they are consistent with what is actually being reported.

- 2. <u>Priority Pollutant Scan.</u> The requirements for chemical analysis have been relaxed to require a minimum of a single scan for permit renewal. The justification is based on the existing database and information available.
- 3. <u>Toxicity Reopener.</u> This remains the same as in the existing permit.

<u>Proposed Section E (Existing Section E):</u> RECEIVING WATER QUALITY MONITORING PROGRAM

The major change in this section is a reduction in the number of stations and depths to be sampled. The required stations are clustered around the discharge, with reference stations inside and outside the harbor. This is fully justified based on the previous data collected. Some monitoring will be required to verify compliance since there is a mixing zone for nutrients. However, there have been no measurements indicating non-compliance with (ASWQS) in the last four or five sampling campaigns conducted by CH2M HILL. A substantial reduction in stations is reasonable. The stations listed in the proposed conditions maintain critical historical stations in the inner harbor and transition zone. ASEPA and EPA retain the ability to increase the monitoring if the situation changes.

The latitude and longitude need to be verified and included (there were some errors in the existing permit, which were corrected).

The navigation and location language has been modified to be somewhat more flexible. Sampling is done from a small boat and maintaining station within 6 meters, as specified in the existing permit, is easy in the interior portion of the harbor, but impossible outside the harbor (Station 5). The positioning system currently being used and reported appears to be acceptable and is certainly technically defensible.

The list of parameters remains essentially the same as in the existing permit. However, the measurement of pH, suspended solids, and light penetration seem unnecessary or redundant and should be reconsidered. Further discussion with EPA should be initiated to discuss these parameters. However, they remain in the proposed conditions since the added effort and expense is relatively small.

A one time expanded survey is required as a part of a more comprehensive water quality survey desired by EPA (see Section H).

(Existing Section E):

DYE OR TRACER STUDIES

Two dye studies were previously done that fully validated the initial dilution and mixing zone models used. There is no need to repeat these studies and the requirement is eliminated.

<u>Proposed Section F (Existing Section G):</u> SEDIMENT MONITORING

The previous studies have shown no impact of the new outfall and only a very slow change in the inner harbor near the old outfalls. Therefore, the frequency of the monitoring has been reduced. This is supported by the previous results.

A one-time expanded survey is required as a part of a more comprehensive water quality survey desired by EPA (see Section H).

(Existing Section H): EUTROPHICATION STUDIES

The previous study as well as the water quality monitoring has shown no problems with excess nutrients stimulating undesirable phytoplankton growth. ASWQS for nutrients and chlorophyll-a are met throughout the harbor. There is no need to repeat these studies and the requirement is eliminated.

Proposed Section G (Existing Section I): CORAL REEF SURVEY

The previous studies have shown no coral reef degradation attributable to the discharge, or within the harbor as a whole. There are, in fact, indications of overall improvement. There are some observable problems in localized areas that are attributable to runoff and sediment loads from the watershed. It is unlikely that EPA would eliminate this monitoring entirely. The proposed study is less frequent, since the observed changes are very slow. The proposed study monitors only a subset of stations (about 25 percent of the full set) around the discharge. These stations were selected to be close to the discharge and representative examples in the middle and outer harbor.

(Existing Section J): VERIFICATION OF MODELING PREDICTIONS

The previous study, as well as the water quality monitoring and dye studies, have clearly demonstrated that the initial model simulations were conservative (predicted higher nutrient concentrations than actually observed). There is no need to repeat these studies and the requirement is eliminated.

<u>Proposed Section H (No Existing Section):</u> FISH TISSUE STUDY

This is a new study. It is a <u>one-time</u> study to pull of the various water quality monitoring together and assess potential environmental impacts. It is prudent for the canneries to carry out such a study. If done as proposed, concurrently with water quality and sediment monitoring, the additional cost is minimized. The cost savings on reducing or eliminating other studies is substantially greater than the marginal cost of this study. It also provides the canneries the opportunity to have technical input, participate and supervise this work.

(Existing Section K): WASTEWATER TREATMENT SYSTEM EVALUATION

This study was required in the existing permit. It was carried out and resulted in improvements. There is no need to re-do this study at this time and it was dropped from the proposed conditions. However, EPA may believe it is prudent to repeat the study or at least do a summary evaluation of current systems or status (a low-level effort).

(Existing Section L): POLLUTION PREVENTION PROGRAM

This study was required in the existing permit. It was carried out and resulted in improvements. There is no need to re-do this study at this time and it was dropped from the proposed conditions. However, EPA may believe it is prudent evaluate the ongoing status of the program (low level effort).

<u>Proposed Section I (Existing Section M):</u> <u>DEFINITIONS</u>

This section remains identical to the existing Section M permit language, unless it needs to be update to reflect current EPA practice.

Proposed Section J (Existing Section N):

QUALITY ASSURANCE / QUALITY CONTROL

This section remains identical to the existing Section N permit language, unless it needs to be update to reflect current EPA practice.

<u>Proposed Section K (Existing Section O):</u> REPORTING

This section remains identical to the existing Section O permit language, unless it needs to be update to reflect current EPA practice.

Proposed Section L (Existing Section P): EPA REGION IX STANDARD CONDITIONS

This section remains identical to the existing Section P permit language, unless it needs to be update to reflect current EPA practice.

StarKist Samoa, Inc.



A Division of Star-Kist Foods, Inc.

P.O. Box 368 Pago Pago, Tutuila Island American Samoa 96799

Telephone: 684 644-4231 Facsimile: 684 644-2440

Mr. Carl L. Goldstein U. S. EPA Region 9 Pacific Insular Area Pro 75 Hawthorne Street San Francisco, CA 9410

Dr. Toafa Vaiaga'e Director, AS EPA Office of the Governor EOB Utulei, American Carl, 8/10/05

I found these DMRs
interweaved in my files. Any
Missing DMRs may have been
recycled or not received by me (?).
I think I may have looked at
dates and recycled duplicates by
mistake. Adam

Gentlemen:

Re: <u>Discharge Monitoring Report for the Months of January, February and March of 2005, under NPDES No. AS0000019 as issued to Star Kist Samoa, INC.</u>

Attached is the Star Kist Samo January, February and March

Star Kist Samoa met all Efflue

The Total Zinc exceeded the I January 2005.

PS-I will look at these more carefully, and if I see DMRs, I'll drap them off.

AyO.

LI \ ls : \ npdes \samoa

Attachments: cc: Mr. Alan Ota

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.

Mr. Phil Thirkell

StarKist Samoa, Inc.



Marie Carlos (1995) Marie Marie (1995) Marie Charlos (1995) Marie Carlos (1995) Marie Carlos (1995) Marie Carlos (1995)

Mr. Carl L. Goldstein U. S. EPA Region 9 Pacific Insular Area Program (CMD-5) 75 Hawthorne Street San Francisco, CA 94105

Dr. Toafa Vaiaga'e Director, AS EPA Office of the Governor EOB Utulei, American Samoa 96799

Gentlemen:

Re: <u>Discharge Monitoring Report for the Months of January, February and March of 2005, under NPDES No. AS0000019 as issued to Star Kist Samoa, INC.</u>

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of January, February and March of 2005.

Star Kist Samoa met all Effluent limits except for the Total Zinc.

The Total Zinc exceeded the Daily Maximum and the 30-Day Average limits for the month of January 2005.

Sincerely

Lance Ihaka

Manager, Engineering and Maintenance

LI \ ls : \ npdes \samoa

Attachments:

cc: Mr. Alan Ota

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.

Mr. Phil Thirkell

PERMITTEE NAME / ADDRESS (Include

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

Facility Name/Location if different) NAME

STAR KIST SAMOA, Inc ADDRESS P. O. BOX 368 PAGO PAGO AMERICAN SAMOA 96799

AS0000019 PERMIT NUMBER

(17-19) 001 DISCHARGE NUMBER

МО

01

DAY

31

MONITORING PERIOD YEAR 2005 FACILITY YEAR MO DAY 2005 FROM 01 01 TO LOCATION (24-25)

OCATION			-	FROM	(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Re	ad instructions before complet	ing this form.
PARAMETER		(3 Card OnlY) QUANT	TTY OR LOADING		1.	IALITY OR CONCENTR			NO.	FREQUENCY	SAMPLE
(32-37)	ļ	(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE										
	MEASUREMENT	1.217294	1.629668				A About		0	Continuous	Recorder
	PERMIT										
FLOW	REQUIREMENT		2.9	mgd					242		
	SAMPLE										
	MEASUREMENT			_	375.1	375.1	375.1		0	Once/Month	Composite
BOD5	PERMIT REQUIREMENT				N/A	N/A	N/A	mg/l			
	SAMPLE										
	MEASUREMENT	1659.8	1875.7		106.7	138.7	158.0		0	Once/Week	Composite
	PERMIT										
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l	2.11		
	SAMPLE					-					
	MEASUREMENT	405.6	713.5		11.8	33.9	60.1		0	Once/Week	Grab (2)
	PERMIT										
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/i	38.074	н н	
	SAMPLE			Ì					1		
	MEASUREMENT	144.3	175.1	╛	7.9	12.0	15.2		0	One Set/Month (3)	Composite
	PERMIT										
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l			
	SAMPLE										
	MEASUREMENT	814.9	1031.8		43.0	67.9	85.0		0	One Set/Month (3)	Composite
	PERMIT			-1							
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l	22/1-3	•	
	SAMPLE								1 .		
	MEASUREMENT				18.4	27.5	43.1		0	Once/Week	Composite
	PERMIT										
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PERMITTEE NAME / ADDRESS (Include

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

	PAGO PAGO AMERICAN SAMOA 96799	
DDRESS	P. O. BOX 368	
AME	STAR KIST SAMOA, Inc	
acting Name/Loc	cation if different)	

(2-16)
AS000019
PERMIT NUMBER

(17-19) 001 DISCHARGE NUMBER

FACILITY:		
LOCATION:		

 MONITORING PERIOD

 YEAR
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 FROM
 2005
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					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Read instructions before completing this form.				
PARAMETER		(3 Card Only) QUANTI				ALITY OR CONCENTRA			NO.	FREQUENCY	SAMPLE		
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE		
		AVERAGE	MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)		
	SAMPLE												
	MEASUREMENT					85	91		0	Continuous	Continuous		
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TYPE OR PRINTED					month and 5 years		OFFICER OR AUTHORIZED A		CODE	NUMBER YEAR	MO DAY		

Wastewater Summary Report for the month of January 2005

					Max			Oil &0	Grease	T	SS	T	P .	7	N	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	_Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1		0.278922	81.7	0.9	83	6.5	6.7										
2		0.775108	197.8	3.9	85	6.7	6.7										
3	557.2800	1.253489	270.9	8.7	83	6.6	6.8										
4	532.6008	1.427580	305.3	8.4	83	6.7	6.9	60.1	713.5	158.0	1875.7	12.8	152.0	53.0	629.2	28.7	
5	583.4735	1.431084	344.0	8.5	85	6.6	6.7					14.6	173.8	78.0	928.3		
6	605.0485	1.550337	421.4	8.5	86	6.7	6.7										
7	599.1893	1.397563	382.7	6.5	84	6.7	6.8										
8		0.781913	197.8	2.8	86	6.7	6.7										
9		0.693666	184.9	2.4	85	6.7	6.8										
10	603.1910	1.252648	365.5	6.5	84	6.7	6.9										
11	596.0980	1.382392	309.6	7.5	82	6.7	6.7										
12	565.5468	1.385361	356.9	6.9	89	6.7	6.8	35.9	413.6	142.0	1635.9	15.2	175.1	82.0	944.7	43.1	
13	590.3975	1.371158	322.5	7.2	86	6.6	7.0					13.8	157.4	64.0	729.8		
14	579.7310	1.342771	352.6	7.1	89	6.7	6.7										
15		0.581099	180.6	2.7	86	6.7	6.7										
16		0.874089	129.0	3.4	84	6.7	6.9										
17	611.0308	1.525342	361.2	8.3	86	6.7	6.9										İ
18	559.1000	1.414421	541.8	9.3	82	6.7	6.9										
19	568.6908	1.481516	305.3	8.9	86	6.7	7.0	28.5	351.1	148.0	1823.4	11.7	144.2	64.0	788.5	18.4	
20	593.4555	1.528492	425.7	11.3	86	6.6	6.9					11.1	141.1	74.0	940.6		375.1
21	574.9550	1.473795	339.7	15.4	85	6.7	6.9										
22	524.5850	1.535471	438.6	14.5	86	6.6	7.1										
23	i i	0.983208	236.5	8.8	87	6.7	6.7				İ						
24	481.5155	1.629668	335.4	15.2	85	6.7	6.7										
25	459.1985	1.470691	503.1	16.6	86	6.7	6.9	11.8	144.3	106.7	1305.0	7.9	96.6	43.0	525.9	19.7	
26	473.4810	1.459738	541.8	14.3	86	6.7	6.9					9.4	114.1	85.0	1031.8		
27	470.8665	1.508539	399.9	15.9	87	6.7	7.0										
28	620.0353	1.370070	331.1	13.9	91	6.7	7.1										
29		0.522368	193.5	6.1	84	6.7	6.8										
30		0.694551	215.0	6.1	82	6.7	6.7										
31	583.4260	1.359057	258.0	11.0	87	6.7	6.9										
тот	12332.8963	37.736107	9829.8	267.5					1622.9		6639.1		1154.3		6518.8		
AVG	560.5860	1.217294	317.1	8.6	85			33.9	405.6	138.7	1659.8	12.0	144.3	67.9	814.9	27.5	375.1

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

NAME	STAR KIST SAMOA, Inc
ADDRESS	P. O. BOX 368
	PAGO PAGO AMERICAN SAMOA 96799

AS0000019
PERMIT NUMBER

001 DISCHARGE NUMBER

(17-19)

FACILITY LOCATION

			·		(20-21) (22-23)	(24-25)	(26-27) (28-29) (30-31)		NOTE: R	ead instructions before complet	ing this form.
PARAMETER		(3 Card Only) QUANTIT			1'	UALITY OR CONCENT	RATION		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE	AVEIGGE	MAXIMOM	0.1110	Militario	AVEIGAGE	MIPANINOM	014710	(02-00)	(04-00)	(03-70)
	MEASUREMENT	0.914996	1.848557						0	Continuous	Recorder
	PERMIT			1					73 Q.A.		
FLOW	REQUIREMENT		2.9	mgd					1.00		
	SAMPLE										
İ	MEASUREMENT				344.2	344.2	344.2		0	Once/Month	Composite
	PERMIT										
BOD5	REQUIREMENT				N/A	N/A	N/A	mg/l		н 19	* *
	SAMPLE										
	MEASUREMENT	1239.0	1483.7]	78.0	98.0	126.7		0	Once/Week	Composite
	PERMIT										
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l		ji 81	•
	SAMPLE										
	MEASUREMENT	296.3	700.3	1	4.9	24.8	59.8			Once/Week	Grab (2)
	PERMIT			l							
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l		14 14	H 11
	SAMPLE										
	MEASUREMENT	135.7	153.7	_	9.9	10.7	11.5		0	One Set/Month (3)	Composite
TOTAL PHOSPHORUS	PERMIT	400	200		A11.4						
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l	ļ.,l	" "	<u> </u>
	SAMPLE	284.8	408.1		120	23.0	37.0			0 0	
	MEASUREMENT PERMIT	204.0	400.1	-	12.0	23.0	37.0		0	One Set/Month (3)	
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l		75	
TOTAL MITROGEN	SAMPLE	1200	2100	ibsiday	IVA	S. NASA	II/A	mg/i	1 - 3 - 43		
	MEASUREMENT				13.8	21.1	25.5		0	Once/Week	Composite
	PERMIT			1	10.0	2	20.0			Onec, week	Composite
TOTAL AMMONIA	REQUIREMENT				N/A	N/A	133	mg/l			n n
NAME / TITLE PRINCIPAL EXECUTIVE OF	<u> </u>	I CERTIFY UNDE	R PENALTY OF L	AW THAT	I HAVE PERSONAL				TEI	LEPHONE DATE	
LANCE IHAKA Manager, Engineering and Ma	aintenance	ON MY INQUIRY OBTAINING THE IS TRUE, ACCUR NIFICANT PENAI THE POSSIBILIT	OF THOSE INDIVINFORMATION. INFORMATION. IN ATE AND COMPILITIES FOR SUBMY OF FINE AND IF	VIDUALS IN I BELIEVE ' LETE. I AM IITTING FA MPRISONM	N SUBMITTED HERI MMEDIATELY RESP THE SUBMITTED IN AWARE THAT THE LSE INFORMATION IENT SEE 18 U.S.C. IS may include fines	ONSIBLE FOR FORMATION FRE ARE SIG- INCLUDING 1001 AND	SIGNATURE OF PRINCIPAL EX	ECUTIVE	AREA		
TYPE OR PRINTED	*	-			month and 5 years		OFFICER OR AUTHORIZED AGE	_	CODE	NUMBER YEAR	MO DAY
COMMENT AND EXPLANATION OF A	NY VIOLATIONS/Def-					,				1	- 1

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc. ADDRESS P. O. BOX 368 PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

(2-16)AS0000019 PERMIT NUMBER

(17-19)001 DISCHARGE NUMBER

Form Approved OMB No. 2040-0004 Expires 3-31-88

MONITORING PERIOD FACILITY YEAR МО DAY YEAR 01 2005 2005 02 TO FROM LOCATION

02 (22-23) (24-25) (26-27) (28-29) (30-31) (20-21) NOTE: Read instructions before completing this form.

DAY

28

MO

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	(30-31) NOTE: Read instructions before completing this form.					
PARAMETER		(3 Card Only) QUANTI	TY OR LOADING		(4 Card Only) QU	ALITY OR CONCENTR			NO.	FREQUENCY	SAMPLE			
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE			
		30-DAY	DAILY			30-DAY	DAILY							
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)			
	SAMPLE					0.5	0.4			• "				
	MEASUREMENT	100				85	94	-	0	Continuous	Continuous			
	PERMIT													
TEMPERATURE	REQUIREMENT					90	95	°F			4			
	SAMPLE				1									
	MEASUREMENT				6.7		7.1	_	0	Continuous	Continuous			
	PERMIT	FRANKE WA							1228					
Нq	REQUIREMENT				6.5		8.6	STD/UNITS	1	*44	1967年,集發明養人。			
	SAMPLE													
	MEASUREMENT					10.0	10.0		0	Once/Month	Composite			
	PERMIT							4			A40 441 5 4.75			
TOTAL COPPER	REQUIREMENT					66	108	μg/L	1974 to	•				
101712001121	SAMPLE		1. 2020 (1990) 1. The state of the state of		84 64-Chimar Sections			1 3						
	MEASUREMENT					173.0	173.0	1	Ιo	Once/Month	Composite			
	PERMIT				On P. 18872. 34883	. 9 válka*** - 19)	DY 683, 20		300					
TOTAL ZINC	REQUIREMENT		2 1 1			1545	1770	μg/L	1 4 2					
TOTAL ZING	SAMPLE				3 TO SECURITION 1	10-10		F3		8 . A 4 . 4 . 1 . 2 CB . 4 . 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1 . 1				
	MEASUREMENT		į .					İ						
	7.0	25.2			38.85.22		Taken burner and the first	1	Z382888		NOTE OF STREET			
	PERMIT													
	REQUIREMENT		Children Side		\$ 2 3 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	48999								
	SAMPLE								1					
	MEASUREMENT						1 3 4 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5				New Section 2007 to 186			
	PERMIT				(12 Page)				484					
	REQUIREMENT		48.		200 W 1886	0.288 5.34 5.34 5.34	1903(8)(C) 4624(8)		7000		4000			
	SAMPLE													
	MEASUREMENT							-		white to add to the second second second				
	PERMIT								经产品					
	REQUIREMENT				75 (201 G) (1 G)									
NAME/TITLE PRINCIPAL EXECUTIVI	E OFFIC E R				I HAVE PERSONAL				TEL	EPHONE DATE				
			ILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED IRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR											
					MMEDIATELY RESP THE SUBMITTED IN			and the same of th						
1 1/2-					AWARE THAT THE		100							
1					LSE INFORMATION		,							
LANCE IHAKA	4				MENT SEE 18 U.S.C.									
Manager, Engineering and Mai					es may include fines		SIGNATURE OF PRINCIPAL E	XECUTIVE	AREA					
TYPE OR PRINTED		and or maximun	n imprisonment of	between	6 month and 5 years	;)	OFFICER OR AUTHORIZED A	GENT	CODE	NUMBER YEAR	MO DAY			

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

OF

2

					Max			Oil &C	Frease	T:	SS	Т	Р	Т	N	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1	591.2128	1.697495	348.3	13.4	82	6.7	6.9										
2	578.8225	1.751439	408.5	14.8	85	6.7	6.8	4.9	71.4	89.3	1300.7	9.9	144.2	14.0	203.9	25.5	
3	586.5510	1.848557	365.5	12.7	86	6.7	6.8					10.0	153.7	19.0	292.1		
4	562.7283	1.487788	348.3	14.2	86	6.7	6.8										
5		0.587036	129.0	4.3	87	6.7	6.7										
6		0.302955	107.5	1.9	84	6.7	6.7										
7	SHUT DOWN	0.198754	60.2	2.1	89	6.7	6.7										
8	SHUT DOWN	0.274173	51.6	0.6	81	6.6	6.7										
9	SHUT DOWN	0.191826	73.1	1.7	84	6.7	6.7										
10	SHUT DOWN	0.250883	25.8	0.6	82	6.7	6.7										
11	SHUT DOWN	0.200675	60.2	2.0	80	7.1	7.1										
12	SHUT DOWN	0.405889	137.6	2.8	83	6.7	6.7										
13		0.834410	137.6	5.9	81	6.7	6.8										
14	589.3863	1.211390	283.8	10.8	84	6.7	7.1										
15		0.317341	81.7	1.8	85	6.7	6.7										
16		0.137177	81.7	1.9	81	6.7	6.7										İ
17		0.773255	236.5	7.0	82	6.7	6.7										
18	602.3428	1.408184	378.4	9.7	84	6.7	6.9	59.8	700.3	126.7	1483.7	11.2	131.2	27.0	316.2	13.8	
19	582.8113	1.326327	365.5	11.2	86	6.7	6.9					11.5	126.9	37.0	408.1		
20		0.567104	129.0	3.9	94	6.7	7.0										
21		0.759936	202.1	6.4	85	6.7	6.8										
22	590.1088	1.334580	335.4	10.9	87	6.7	6.9										
23	589.0223	1.603466	356.9	12.8	88	6.7	6.9										
24	576.9828	1.437726	412.8	13.0	88	6.7	6.9	9.8	117.2	78.0	932.6	11.4	136.3	29.0	346.7	24.1	344.2
25	551.8790	1.420507	498.8	14.3	88	6.7	6.9					10.3	121.7	12.0	141.8		
26	575.6465	1.244615	468.7	12.0	89	6.7	6.7										
27		0.903958	249.4	8.1	88	6.7	6.8										
28	563.7820	1.142452	331.1	9.2	88	6.7	7.1										
тот	7541.2764	25.619898	6665	176					888.9		3717.0		814.0		1708.8		
AVG	580.0982	0.914996	238	7.5	85			24.8	296.3	98.0	1239.0	10.7	135.7	23.0	284.8	21.1	344.2

ADDRESS

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

,	
NAME	STAR KIST SAMOA, Inc.

P. O. BOX 368
PAGO PAGO AMERICAN SAMOA 96799

(2-10)											
AS0000019											
PERMIT NUMBER											

001
DISCHARGE NUMBER

FACILITY

| MONITORING PERIOD | YEAR | MO | DAY | FROM | 2005 | 03 | 01 | TO | 2005 | 03 | 31 |

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Re	ad instructions before complet	ing this form.
PARAMETER		(3 Card Only) QUAN			,,	ALITY OR CONCENTRA			NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)	1	(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE								1		
	MEASUREMENT	1.210035	1.681876	ļ					0	Continuous	Recorder
	PERMIT]					1863		
FLOW	REQUIREMENT		2.9	mgd						11	
	SAMPLE		1						İ		
	MEASUREMENT]	319.0	319.0	319.0		0	Once/Month	Composite
BOD5	PERMIT REQUIREMENT				N/A	N/A	N/A	mg/l			
	SAMPLE		1 1000 C 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			3-					
	MEASUREMENT	1163.8	1556.7		66.7	92.4	120.7		0	Once/Week	Composite
	PERMIT						Z				
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l			"
	SAMPLE										
	MEASUREMENT	215.9	495.1		4.6	16.7	35.4		0	Once/Week	Grab (2)
OU S ODEACE	PERMIT										
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l		н	
	SAMPLE										
	MEASUREMENT	138.3	166.1	1	9.7	11.1	13.6		0	One Set/Month (3)	Composite
	PERMIT			l							
TOTAL PHOSPHORUS	REQUIREMENT	192	309	ibs/day	N/A	N/A	N/A	mg/l	- 55gg/		1 / 34" 168
	SAMPLE	040.0	1007.4	1	10.0	CE 4	04.0			0 0 174 11 (0)	
	MEASUREMENT	810.0	1067.4	-	16.0	65.1	84.0		0	One Set/Month (3)	Composite
TOTAL NITROGEN	PERMIT REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l			
TOTAL NITROGEN	SAMPLE	1200	2100	ibsiday	IVA	N/A	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	nig/i			<u> </u>
	MEASUREMENT				19.7	26.6	32.6		0	Once/Week	Composite
	PERMIT	7 82 8 6 8	No. 1888 235 Ya. 10	1		20.0			200	Oncomoun	Composite
TOTAL AMMONIA	REQUIREMENT				N/A	N/A	133	mg/l		и и	
ME / TITLE PRINCIPAL EXECUTIVE OF	2001 2000 0000 10 11001 10 10	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED								EPHONE DATE	1 50, CD 100, SHIPPER
ANCE IHAKA Manager, Engineering and N	Maintenance	ON MY INQUIRY (OBTAINING THE II IS TRUE, ACCURA NIFICANT PENALT THE POSSIBILITY	OF THOSE INDIVIDU NFORMATION. I BE TE AND COMPLET TIES FOR SUBMITT OF FINE AND IMPR	JALS IMMED LIEVE THE S E. I AM AWA ING FALSE I RISONMENT:	MITTED HEREIN AND IATELY RESPONSIBLE SUBMITTED INFORMA RE THAT THERE ARD NFORMATION INCLU SEE 18 U.S.C. 1001 A by include fines up to	LE FOR ATION E SIG- DING ND	SIGNATURE OF PRINCIPAL EX	ECUTIVE	AREA		
TYPE OR PRINTED	7-11-92-1	and or maximum i	mprisonment of be	tween 6 mon	th and 5 years)		OFFICER OR AUTHORIZED AG	ENT	CODE	NUMBER YEAR	MO DAY

ADDRESS

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

STAR KIST SAMOA, Inc
P. O. BOX 368
PAGO PAGO AMERICAN SAMOA 96799

(2-16) AS0000019 PERMIT NUMBER (17-19) 001 DISCHARGE NUMBER

MONITORING PERIOD FACILITY YEAR МО DAY YEAR МО DAY 2005 2005 03 01 то 03 31 LOCATION FROM:

PARAMETER		(3 Card Only) QUANTITY O	R LOADING		(4 Card Only) QL	JALITY OR CONCENTRAT	ION		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53) 30-DAY	(54-61) DAILY		EX	OF ANALYSIS	TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE MEASUREMENT					86_	94	_	0	Continuous	Continuous
TEMPERATURE	PERMIT REQUIREMENT					90	95	۰F			
	SAMPLE MEASUREMENT			*	6.6		7.4		0	Continuous	Continuous
pН	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS			
	SAMPLE MEASUREMENT					10.0	10.0		0	Once/Month	Composite
TOTAL COPPER	PERMIT REQUIREMENT					66	108	μg/L		#	
	SAMPLE MEASUREMENT					276.0	276.0		0	Once/Month	Composite
TOTAL ZINC	PERMIT REQUIREMENT					1545	1770	_ μg/L		n n	Composite
	SAMPLE MEASUREMENT	. 200700									
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT	200							uli		
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT					332.00			, and	226 2 200 2	
	PERMIT REQUIREMENT										reard.
LANCE IHAK nager, Engineering and Mai	A	AND AM FAMILIAE ON MY INQUIRY O OBTAINING THE II IS TRUE, ACCURA NIFICANT PENALT THE POSSIBILITY	R WITH THE INFORM OF THOSE INDIVIDUA NFORMATION, I BEL TE AND COMPLETE TIES FOR SUBMITTII OF FINE AND IMPRI	MATION SUI ALS IMMED LIEVE THE S E. I AM AWA NG FALSE SONMENT	VE PERSONALLY EXA BMITTED HEREIN AN DIATELY RESPONSIB SUBMITTED INFORMA ARE THAT THERE AR INFORMATION INCLU SEE 18 U.S.C. 1001 A By include fines up to	D BASED LE FOR ATION IE SIG- IDING IND	No.		TELE	PHONE DATE	

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

2

					Max			Oil &C	Grease	T	ss	T	Р	Т	N	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l_	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1	582.9538	1.388126	430.0	12.0	90	6.7	6.8										
2	599.8428	1.455979	43 8.6	14.1	87	6.7	6.9	19.8	239.7	66.7	808.6	9.7	117.4	16.0	193.7	26.1	
3	576.3218	1.491550	464.4	13.9	87	6.7	6.9					11.4	141.4	25.0	310.1		
4	595.3400	1.400997	399.9	10.1	91	6.7	6.8										
5		0.497137	227.9	4.3	84	6.7	6.8										
6		0.685252	210.7	5.0	83	6.7	6.7										
7	602.5268	1.277701	344.0	9.9	87	6.6	6.7										
8	602.4293	1.518378	425.7	12.6	89	6.7	6.7										
9	591.9420	1.527978	391.3	15.8	90	6.7	6.9	6.9	87.7	70.0	889.5	10.0	127.1	84.0	1067.4	25.9	
10	583.6498	1.570299	356.9	14.9	88	6.7	7.0					11.0	143.6	81.0	1057.7		
11	581.0620	1.499723	335.4	12.5	89	6.7	6.8		İ								
12		0.560780	150.5	4.7	90	6.7	6.8										
13		0.745717	270.9	6.1	86	6.7	6.7										
14	587.7953	1.380869	490.2	14.4	83	6.7	6.8										
15	563.7240	1.453376	425.7	14.7	87	6.7	6.8										
16	587.8870	1.467064	391.3	14.3	89	6.7	6.8	4.6	56.1	93.3	1138.3	11.9	145.2	82.0	1000.4	28.7	319.0
17	590.6963	1.452379	404.2	16.2	88	6.7	6.8										
18	580.0195	1.349416	374.1	14.8	94	6.7	6.8					11.2	125.7	78.8	884.3		
19		0.657945	172.0	5.4	84	6.7	6.8										
20		0.763355	180.6	6.5	80	6.7	6.9										
21	613.3155	1.299951	331.1	12.4	88	6.7	6.9										
22	591.2328	1.681876	404.2	13.3	88	6.7	7.0	35.4	495.1	111.3	1556.7	11.9	166.1	75.0	1049.0	19.7	
23	610.4705	1.537061	387.0	12.3	88	6.8	7.0					10.5	134.2	66.0	843.6		
24	606.8343	1.245867	292.4	8.1	92	6.8	6.9										
25		0.580933	120.4	3.2	80	6.8	6.9										
26		0.323024	38.7	1.1	80	6.7	6.7										
27		0.709757	193.5	5.6	82	6.7	6.9										
28	587.8130	1.628239	399.9	12.0	81	6.7	7.2					45.5	400 =	00.0	000.4	000	
29	568.7043	1.420456	421.4	11.7	81	6.7	7.4	17.0	200.8	120.7	1425.8	13.6	160.7	83.0	980.4	32.6	
30	570.3583	1.429869	451.5	12.9	81	6.7	6.9					10.2	121.2	60.0	713.4		
31	601.5560	1.510019	434.3	12.6	82	6.8	7.0		1000		5010.0		1000.0		0460.6		
TOT	12976.4751	37.511073	10358.7	327.4					1079.4		5818.9		1382.6	05.4	8100.0	00.0	240.0
AVG	589.8398	1.210035	334.2	10.6	86			16.7	215.9	92.4	1163.8	11.1	138.3	65.1	810.0	26.6	319.0

StarKist Seafood, Inc.



P.O. Box 360 Propo Pago. Tutuita Island Anishcan Samon 96799

Tolephone: 684-944-1836 Paccimite: 684-944-9446

July 27, 2004

Mr. Carl L. Goldstein U. S. EPA Region 9 Pacific Insular Area Program (CMD-5) 75 Hawthorne Street San Francisco, CA 94105

Mr. Peter Pershut,
Director, ASEPA
Office of the Governor
EOB Utulei, American Samoa 96799

Gentlemen:

Re: <u>Discharge Monitoring Report for the Months of April, May and June of 2004, under NPDES No. AS0000019 as issued to Star Kist Samoa, INC.</u>

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of April, May and June of 2004.

Star Kist Samoa met all Effluent limits except for the Temperature and Total Copper.

The Temperature exceeded the 95°F Daily Maximum Limit on June 25, 2004.

The Operators were retrained again on the recently installed Engineering changes that have been implemented to correct the Temperature exceedence problem.

The Total Copper exceeded the Maximum Limit for the month of April. This was caused by an accidental spill of Copper Sulfite which made its way to the Waste Water Treatment Plant. This was a one time occurance.

Sincerely

Lance Ihaka

Manager, Engineering and Maintenance

LI \ ls : \ npdes \samoa

Attachments: cc: Mr. Alan Ota

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.

Mr. Phil Thirkell

Wastewater Summary Report for the month of April 2004

					Max			Oil &C	Grease	T	SS	7	Ъ	7	ГΝ	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1	604.5713	1.752466	369.8	13.1	86	6.8	6.9										
2	588.6750	1.655982	322.5	12.5	86	6.8	6.9										
3		0.555355	116.1	4.8	90	6.7	6.8										
4		0.738816	154.8	6.6	77	6.7	6.7										
5	578.8233	1.341540	253.7	14.3	89	6.7	6.7				j						
6	593.5388	1.718268	460.1	15.6	87	6.7	7.1	36.7	524.4	152.0	2171.9	14.1	201.5	80.0	1143.1	20.2	
7	580.9478	1.703828	417.1	16.1	87	6.8	6.9					14.3	202.6	80.0	1133.5		
8	583.4108	1.646067	331.1	12.7	86	6.8	6.8										
9		0.702320	90.3	2.5	89	6.8	6.8										
10		0.325130	43.0	1.3	78												
11		0.799680	73.1	2.8	76	6.7	6.7										
12	601.5201	1.575911	313.9	14.8	84	6.7	6.7										
13	595.6330	1.783713	447.2	17.3	87	6.7	7.3	10.6	157.2	60.7	900.4	12.4	183.9	80.0	1186.7	24.1	366.0
14	595.5133	1.787449	455.8	14.8	86	6.7	6.8					13.9	206.6	80.0	1189.2		
15	595.7230	1.475496	309.6	13.0	86	6.7	6.7										
16		0.673075	141.9	5.9	87	6.7	6.7										
17		0.447912	60.2	3.2	76	6.7	6.7										
18		0.696480	116.1	5.0	78	6.7	6.7									İ	
19	581.2403	1.361845	318.2	13.4	86	6.7	6.7										
20	580.5673	1.519634	421.4	13.9	85	6.7	6.8										
21	593.9813	1.588489	430.0	15.0	88	6.7	6.9	15.5	204.8	69.3	915.4	14.1	186.3	60.0	792.6	30.4	
22	601.4205	1.689830	412.8	14.8	88	6.8	6.9					13.3	186.9	80.0	1124.2		
23	574.8015	1.439665	326.8	13.0	87	6.7	6.9										
24		0.554619	86.0	3.7	90	6.7	6.7										
25		0.534662	141.9	5.7	77	6.7	6.7										'
26	588.4745	1.536275	313.9	13.3	84	6.7	6.8										
27	562.8845	1.694056	455.8	15.2	85	6.7	6.9	30.4	428.3	128.7	1813.1	11.7	164.8	80.0	1127.0	25.9	
28	596.1620	1.448296	339.7	13.5	85	6.7	6.9					14.9	179.5	70.0	843.1		
29	576.8325	1.660238	318.2	13.1	85	6.7	6.8										
30	588.4545	1.293151	184.9	9.7	86	6.7	6.8										
тот	11763.1753	37.700248	8225.9	320.6					1314.7		5800.8		1512.1		8539.4		
AVG	588.1588	1.256675	274.2	10.7	85			23.3	328.7	102.7	1450.2	13.6	189.0	76.3	1067.4	25.2	366.0

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

 NAME
 STAR KIST SAMOA, Inc

 ADDRESS
 P. O. BOX 368

 PAGO PAGO AMERICAN SAMOA 96799

(2-16)
AS000019
PERMIT NUMBER

001 DISCHARGE NUMBER

(17-19)

FACILITY LOCATION FROM 2004 04 01 TO 2004 04 30 (20.21) (20.23) (24.25) (28.27) (28.29) (30.31)

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	-	d instructions before comple		
PARAMETER		ľ ·	ITY OR LOADING		F	ALITY OR CONCENTRA			NO.	FREQUENCY	SAM	
(32-37)		(46-53)	(54-61)	1	(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TY	PE
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS	(62-63)	(64-68)	(69-	70)
	SAMPLE	77727072		0,			-,,,,,,,		1			
	MEASUREMENT	1.256675	1.787449						0	Continuous	Record	ter
	PERMIT					AND THE RESERVE OF THE PROPERTY OF THE PROPERT						
FLOW	REQUIREMENT		2,9	mgd					1		H	
112	SAMPLE											
	MEASUREMENT				366.0	366.6	366.0		0	Once/Month	Compo	site
	PERMIT.											
BOD5	REQUIREMENT			P.	N/A	N/A	N/A	mg/l	20.64			
	SAMPLE						1500					
	MEASUREMENT	1450.2	2171.9		60.7	102.7	152.0		0	Once/Week	Compo	site
	PERMIT			1								
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	, N/A	mg/l			1	
	SAMPLE	200.7	504.4		10.6	23.3	36.7		0	Once/Week	Grab	(2)
	MEASUREMENT	328.7	524.4		10.6	23.3	30.7			Olice/vveek	Grab	(2)
OIL & GREASE	PERMIT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l				
OIL & GREASE	REQUIREMENT	1.03	1902	ibs/ day	IWA		PERSONAL AMERICAN	1119/1		Americal California and California		
	MEASUREMENT	189.0	206.6		11.7	13.6	14.9		0	One Set/Month (3)	Compo	site
	PERMIT	103.0	200.0	5		70.0					No.	
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l				
	SAMPLE	1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,	A DECEMBER OF THE PARTY OF THE	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						•		
	MEASUREMENT	1067.4	1189.2		60.0	76.3	80.0		0	One Set/Month (3)	Compo	site
	PERMIT											
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l	-0.7		•	y.
	SAMPLE											
	MEASUREMENT				20.2	25.2	30.4		0	Once/Week	Compo	site
	PERMIT			2.5 2.5 3.0					100			V-15
TOTAL AMMONIA	REQUIREMENT				N/A	N/A	133	mg/l	TANKS S			X4
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LANCE IHAKA Manager, Engineering and Ma	aintenance				ENT SEE 18 U.S.C. is may include fines		SIGNATURE OF PRINCIPAL EX	ECUTIVE	AREA			
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NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

NAME	STAR KIST SAMOA. Inc	
ADDRESS	P. O. BOX 368	
	PAGO PAGO AMERICAN SAMOA 96799	

(2-16)
AS0000019
PERMIT NUMBER

001 DISCHARGE NUMBER

FACILITY:
LOCATION:

| MONITORING PERIOD | YEAR | MO | DAY | YEAR | MO | DAY | DAY | YEAR | MO | DAY | YEAR | MO | DAY | YEAR | MO | DAY | YEAR | MO | DAY | YEAR | MO | DAY | YEAR | MO | DAY | YEAR | MO | DAY | YEAR | MO | DAY | YEAR | MO | DAY | YEAR | MO | DAY | YEAR | MO | DAY | YEAR | MO | DAY | YEAR | MO | DAY | YEAR | MO | DAY | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | Y

PARAMETER			,			(20-21) (22	?-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Re	ad instructions before comple	
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TYPE OR PRINTED and or maximum imprisonment of between 6 month and 5 years) OFFICER OR AUTHORIZED AGENT CODE NUMBER YEAR MO DAY											1	NUMBER YEAR	MO DAY

Wastewater Summary Report for the month of May 2004

					Max			Oil &	Grease	Т	ss	Т	P	Т	N.	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1		0.607056	64.5	2.5	89	6.7	6.7										
2		0.686441	103.2	4.5	81	6.7	6.8										
3	532.9400	1.565211	258.0	12.8	88	6.7	6.8										
4	515.0443	1.597291	283.8	12.6	88	6.7	6.7										
5	532.3060	1.269893	352.6	15.1	90	6.7	6.9	12.1	127.8	84.0	887.1	14.1	148.9	90.0	950.4	28.7	
6	503.4190	1.317070	283.8	12.8	88	6.7	6.9					11.6	127.1	80.0	876.2		
7	493.5010	1.245740	249.4	10.5	91	6.7	6.8										
8		0.584467	68.8	2.9	91	6.7	6.7										
9		0.773228	133.3	5.1	78	6.7	6.7										
10	526.3180	1.595106	296.7	12.5	89	6.7	6.8										
11	614.6060	1.393765	270.9	14.0	90	6.7	6.8	27.0	312.9	105.3	1220.5	10.8	125.2	70.0	811.3	26.0	
12	595.0215	1.282828	296.7	12.0	88	6.7	6.9					12.0	128.0	80.0	853.4		459.8
13	590.9133	1.588061	292.4	14.4	88	6.7	6.8										
14	606.6428	1.360505	236.5	11.4	91	6.7	6.8										
15		0.587673	64.5	2.6	90	6.7	6.8										
16		0.641381	68.8	3.3	77	6.7	6.7										
17	594.5968	1.434047	301.0	12.8	87	6.7	6.8										
18	594.0330	1.527674	421.4	13.2	90	6.8	6.8										
19	604.0453	1.535976	352.6	14.9	90	6.6	7.2	55.3	706.4	230.7	2946.8	12.8	163.5	80.0	1021.9	23.5	
20	623.1368	1.539848	365.5	14.7	88	6.8	7.1					12.8	163.9	80.0	1024.4		
21	608.8778	1.703236	412.8	13.7	85	6.9	7.0										
22	607.4965	1.453727	313.9	9.5	88	6.7	6.9										
23		0.980370	223.6	8.3	88	6.7	6.8										
24	521.5710	1.359203	322.5	9.0	82	6.7	6.8								,		
25	553.4820	1.775860	369.8	13.5	82	6.7	6.8										
26	615.8695	1.792246	352.6	14.6	84	6.7	7.0	3.4	50.7	74.0	1102.9	11.0	163.9	60.0	894.3	30.2	
27	622.3743	1.617734	322.5	12.9	88	6.7	6.9					12.9	173.5	40.0	538.1		
28	594.3988	1.195955	163.4	8.3	90	6.7	6.8										
29		0.635701	38.7	1.8	95	6.7	6.8										
30		0.322559	30.1	1.9	79	6.7	6.7										
_ 31		0.811865	154.8	6.3	78	6.7	6.8										
TOT	12050.5937	37.781717	7469.1	304.4					1197.8		6157.3		1194.0		6472.4		
AVG	573.8378	1.218765	240.9	9.8	87			24.5	299.5	123.5	1539.3	12.3	149.3	72.5	809.1	27.1	459.8

Facility Name/Location if different)

FACILITY

LOCATION

NAME STAR KIST SAMOA, Inc. ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLU	TANT DISCHARGE SYSTEM (NPDES
DISCHARGE	MONITORING REPORT (DMR

(2-16) A\$0000019 PERMIT NUMBER

001 DISCHARGE NUMBER

(17-19)

MONITORING PERIOD YEAR МО DAY YEAR MO DAY 05 01 2004 05 31 FROM 2004 TO

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Re	ead instructions before completi	
PARAMETER		(3 Card Only) QUANTIT	Y OR LOADING		(4 Card Only) Qt	JALITY OR CONCENT	RATION		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY	DAILY			30-DAY	DAILY				
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE										_
	MEASUREMENT	1.218765	1.792246		conditions of the virial control of the	V. State Albertal or other interest Auto-	Page and the second		0	Continuous	Recorder
	PERMIT								10.00		
FLOW	REQUIREMENT	AMERICA	2.9	mgd							
	SAMPLE										
	MEASUREMENT			_	459.8	459.8	459.8		0	Once/Month	Composite
	PERMIT				1 3 4 5 5 7 Mar.				CHIPPING CONT.		
BOD5	REQUIREMENT				N/A	N/A	N/A	mg/l			•
	SAMPLE										
	MEASUREMENT	1539.3	2946.8		74.0	123.5	230.7		0	Once/Week	Composite
	PERMIT						May Rose		TATION OF		
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l			•
	SAMPLE	THE STATE OF THE S	Systems and a super-	0	A STREET, STATE OF THE STREET, THE STREET, STATE OF THE STATE OF THE STREET, STATE OF THE STAT	CONTRACTOR SEASONS SEA	C 400 000 000 000 000 000 000 000 000 00		PARCHUS (PROF	SOMOROGOMO SAMON DE LA PETTALISMO	
	MEASUREMENT	299.5	706.4		3.4	24.5	55.3		10	Once/Week	Grab (2)
	PERMIT	SASSETTE								Picture	
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l			
OIL & OILLAGE	SAMPLE			ibor day			The second secon	mg/i	- House and the same	2	BMOVA CONTRACTOR
	MEASUREMENT	149.3	173.5		10.8	12.3	14.1		0	One Set/Month (3)	Composite
	PERMIT	149.3	173.3		10.0	12.5	1			One Septional (S)	Composite
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l			
TOTAL PHOSPHORUS	SAMPLE	192	303	IDS/UAY		IVA	WA	mg/i	indiani consider		
	1	809.1	1004.4		40.0	72.5	90.0			O C-4/M4h (2)	
	MEASUREMENT	009.1	1024.4	20	40.0	12.3	90.0		0	One Set/Month (3)	
TOTAL NITROOFN	PERMIT	4000	0400			N/A	N/A	//	100 Marie 100 Ma		
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A ==	mg/l	11.27		
	SAMPLE					07.4					
	MEASUREMENT	E La Company de la casa de la cas		4	23.5	27.1	30.2		0	Once/Week	Composite
	PERMIT					11.124					
TOTAL AMMONIA	REQUIREMENT				N/A	≠ N/A	133	mg/l			
NAME / TITLE PRINCIPAL EXECUTIVE OFFI	CER				HAVE PERSONALI				TEL	EPHONE DATE	
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Manager, Engineering and Ma	aintenance	- ·			s may include fines	•	SIGNATURE OF PRINCIPAL EX		AREA		
TYPE OR PRINTED	<u> </u>		imprisonment o	f between 6	month and 5 years)	OFFICER OR AUTHORIZED AG	ENT	CODE	NUMBER YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Form Approved

OMB No. 2040-0004

Expires 3-31-88

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

	adion ii diiiciciii,	
NAME	STAR KIST SAMOA, Inc	
ADDRESS	P. O. BOX 368	
	PAGO PAGO AMERICAN SAMOA 96799	

AS000019
PERMIT NUMBER

(17-19) 001 DISCHARGE NUMBER

MONITORING PERIOD FACILITY YEAR МО DAY YEAR MO DAY 2004 05 01 2004 05 31 FROM TO LOCATION

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Re	ad instructions before complet	
PARAMETER		(3 Card Only) QUANTI	TY OR LOADING		(4 Card Only) QL	JALITY OR CONCENTRA	ATION		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY	DAILY			30-DAY	DAILY				
	CAMPLE	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE					0.7	0.5				5
	MEASUREMENT	La Sagramero : 12 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2				87	95	×	0	Continuous	Continuous
TEMPEDATURE	PERMIT										
TEMPERATURE	REQUIREMENT	Control of the second				90	95	°F	Antimip of A		
	SAMPLE	ł							_		
	MEASUREMENT				6.6		7.2	1	0	Continuous	Continuous
	PERMIT										
рН	REQUIREMENT				6.5		8.6	STD/UNITS			
	SAMPLE							1			
	MEASUREMENT					15	15		0	Once/Month	Composite
	PERMIT								44.4		
TOTAL COPPER	REQUIREMENT	Walling Inc.				66	108	μg/L			
	SAMPLE										
	MEASUREMENT					351.0	351.0		0	Once/Month '	Composite
	PERMIT								1150.5		
TOTAL ZINC	REQUIREMENT					1545	1770	μg/L	0.000		
	SAMPLE	20.50 240 West School School School	The state of the s		Control of the Control of	PALICE STEEDS AND AND AND AND AND AND AND AND AND AND	Consequence of the second seco		Selectivity	4	26-26. 1.3 1 (1.4 ± 9 max - 2556; Q 7 mmu).
	MEASUREMENT										
	PERMIT					2.0			12.00		
	REQUIREMENT								200		
	SAMPLE	under an in the second second second	*195 *** SEPT SET SET SET SET SET SET SET SET SET SE						Straightening said.		
	MEASUREMENT										
	12 P. C. C. C. C. C. C. C. C. C. C. C. C. C.				appearance and the				20-22		
	PERMIT	7									
	REQUIREMENT		BARNETT ER 15 11 11 11					-			
	SAMPLE										
	MEASUREMENT	Asia eta marenta marenea	1.4								1 (68)
	PERMIT					Table 5-084			4.4		#144.4# N
MANAGET E PRINCIPAL EVE	REQUIREMENT	LOCATION INTO	D. DENALTY OF !	ANN THE	HAVE DEDOCMAN	LVEVAMINES		<u> </u>			
NAME/TITLE PRINCIPAL EXECUTIVE	OFFICER				I HAVE PERSONAL I SUBMITTED HER				TEL	EPHONE DATE	
//9/	2 /				MEDIATELY RESE						
					THE SUBMITTED IN						
1 / Ltk 1					AWARE THAT THE						
X	1-11		LTIES FOR SUBM	ITTING FA	LSE INFORMATION	NINCLUDING					
	LANCE IHAKA		THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND								
	er, Engineering and Maintenance						1		AREA		
TYPE OR PRINTED	TYPE OR PRINTED		imprisonment of	between 6	month and 5 years	s)	OFFICER OR AUTHORIZED AC	BENT	CODE	NUMBER YEAR	MO DAY

Wastewater Summary Report for the month of June 2004

					Max			Oil &C	Grease	T:	ss	Т	.b	Т	N	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1	614.9315	1.394142	313.9	13.3	86	6.7	6.8										
2	572.3853	1.410914	352.6	13.1	88	6.7	6.8										
3	562.8760	1.304211	382.7	14.7	91	6.7	6.8	16.9	183.3	78.0	846.0	13.8	149.7	60.0	650.7	37.7	
4	561.0523	1.366476	387.0	13.3	92	6.8	6.8					11.6	131.8	40.0	454.5		
5	587.3255	1.152461	219.3	8.1	86	6.7	6.8										
6		0.844624	98.9	4.2	91	6.7	6.7										
7	609.4868	1.262541	262.3	8.7	88	6.7	6.7										
8	284.0973	1.081139	352.6	12.4	94	6.6	6.7										
9	630.4870	1.457154	361.2	13.4	92	6.7	7.1	17.6	213.3	68.0	824.0	11.3	136.9	70.0	848.2	35.8	408.0
10	643.2635	1.462567	412.8	14.2	90	6.6	6.8					11.7	142.3	70.0	851.4		
11	632.1768	1.255239	296.7	11.2	94	6.7	6.7										
12		0.636813	163.4	3.9	95	6.7	6.7										
13		0.741869	227.9	5.9	76	6.7	6.7										
14	623.3298	1.331593	374.1	11.4	89	6.7	6.8										
15	604.9643	1.607137	447.2	13.2	89	6.7	7.2	19.6	262.0	153.8	2055.5	13.8	184.4	50.0	668.2	25.2	
16	600.8888	1.458685	434.3	14.2	90	6.5	6.9					13.6	165.0	80.0	970.4		
17	616.8983	1.661520	382.7	12.3	88	6.7	6.8										
18	615.9673	1.313998	258.0	8.1	92	6.7	6.7										
19		0.535323	55.9	2.2	89	6.7	6.8										
20		0.734731	124.7	4.4	79	6.7	6.7										
21	617.0945	1.316137	227.9	11.3	87	6.7	6.7										
22	645.0065	1.611744	344.0	10.7	85	6.7	6.7										
23	635.6080	1.761326	382.7	14.5	88	6.7	7.0	6.8	99.6	64.0	937.4	13.0	190.4	70.0	1025.3	42.8	
24	650.0155	1.687641	292.4	14.6	88	6.7	7.0					12.7	178.2	60.0	842.1		
25	633.5143	1.534284	236.5	11.1	98	6.7	6.7										
26		0.564164	43.0	2.4	88	6.7	6.8										
27		0.868078	159.1	6.4	79	6.7	6.8										
28	606.8805	1.409531	258.0	11.8	90	6.7	6.7										
29	597.6180	1.442115	339.7	14.7	92	6.7	6.8	27.7	332.2	121.0	1451.1	12.9	154.7	60.0	719.6	30.4	
30	596.8850	1.551244	361.2	14.1	92	6.7	6.7				,	12.4	160.0	40.0	516.0		
тот	13742.7528	37.759401	8552.7	313.8					1090.4		6114.0		1593.4		7546.4		
AVG	597.5110	1.258647	285.1	10.5	89			17.7	218.1	97.0	1222.8	12.7	159.3	60.0	754.6	34.4	408.0

PERMITTEE NAME / ADDRESS (include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc. **ADDRESS** P. O. BOX 368 PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

AS0000019 PERMIT NUMBER

(17-19)001 DISCHARGE NUMBER

FACILITY LOCATION

MONITORING PERIOD YEAR МО DAY YEAR MO DAY 2004 06 01 2004 06 30 FROM TO

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Re	ad instructions before completing	ng this form.
PARAMETER			ITITY OR LOADING			LITY OR CONCENTRATIO			NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		- Ex	OF ANALYSIS	TYPE
	1	30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE	717210102	in came in	-		7,72,0,702	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		(02 00,1	(0.00)	(00.10)
	MEASUREMENT	1.258647	1.761326							Continuous	Recorder
	PERMIT			B 60 24					1352		
FLOW	REQUIREMENT		2.9	mgd	r ege	# 1 Test					
	SAMPLE										
	MEASUREMENT				408.0	408.0	408.0		0	Once/Month	Composite
	PERMIT	450	Tarata .								
BOD5	REQUIREMENT				N/A	N/A	N/A	mg/l		•	
	SAMPLE										
	MEASUREMENT	1222.8	2055.5		64.0	97.0	153.8		0	Once/Week	Composite
	PERMIT										
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l			M-1/1
	SAMPLE										
	MEASUREMENT	218.1	332.2		6.8	17.7	27.7		0	Once/Week	Grab (2)
	PERMIT				THE HAMPET T						
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	/ N/A	N/A	mg/l_		April 1982	13 - 4 - 3 × 10 * 3 + 3
	SAMPLE										
	MEASUREMENT	159.3	190.4		11.3	12,7	13.8		0	One Set/Month (3)	Composite
	PERMIT			,.							
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l	100000		
	SAMPLE	754.0	4005.0		40.0	60.0	80.0			One Sat/Manth (2)	Commonito
	MEASUREMENT	754.6	1025.3		40.0	00.0	00.0		0	One Set/Month (3)	Composite
TOTAL NITROCEN	PERMIT	4200	2100	lbe/dev	N/A	N/A	N/A	mg/l			
TOTAL NITROGEN	REQUIREMENT SAMPLE	1200	2100	lbs/day	WA	WA	IVA	mg/r	107V41.2238		
	MEASUREMENT				25.2	34.4	42.8		0	Once/Week	Composite
	PERMIT			35.	25.2	34.4	42.0			Olice/freek	Composite
TOTAL AMMONIA	REQUIREMENT				N/A	N/A	133	mg/l		3-11-14 3 -12-11	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
NAME / TITLE PRINCIPAL EXECUTIVE OFFI		LCERTIFY UNDER	R PENALTY OF LAV	N THAT I HA	VE PERSONALLY EX		Property Committee Committ	mg/i	TEL	EPHONE DATE	ALL POSSESSES AND ADDRESS OF THE PARTY OF TH
LANCE IHAKA		AND AM FAMILIA ON MY INQUIRY OBTAINING THE IS TRUE, ACCUR NIFICANT PENAL THE POSSIBILITY	AR WITH THE INFOR OF THOSE INDIVID INFORMATION. I BI ATE AND COMPLE TIES FOR SUBMIT OF FINE AND IMP	RMATION SU DUALS IMME ELIEVE THE TE. I AM AW. TING FALSE PRISONMENT	BMITTED HEREIN AN DIATELY RESPONSIE SUBMITTED INFORM ARE THAT THERE AR INFORMATION INCLI	ID BASED BLE FOR ATION RE SIG- JDING AND					
Manager, Engineering and I	Maintenance	4			ay include fines up to	\$10,000	SIGNATURE OF PRINCIPAL EX		AREA		
TYPE OR PRINTED		and or maximum	imprisonment of b	etween 6 mo	nth and 5 years)		OFFICER OR AUTHORIZED AG	ENT	CODE	NUMBER YEAR	MO DAY

PERMITTEE NAME / ADDRESS (include

Facility Name/Location if different)

NAME	STAR KIST SAMOA, Inc	
ADDRESS	P. O. BOX 368	
	PAGO PAGO AMERICAN SAMOA 96799	

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

(2-16) AS0000019 PERMIT NUMBER (17-19) 001 DISCHARGE NUMBER Form Approved
OMB No. 2040-0004
Expires 3-31-88

FACILITY

MONITORING PERIOD YEAR MO DAY YEAR MO DAY 2004 06 01 TO 2004 06 30 /24 251 /20 241

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: R	ead instructions b	efore complet	ing this form.	
PARAMETER		(3 Card Only) QUANTITY (OR LOADING		(4 Card Dnly) QU	ALITY OR CONCENTRATION	ON		NO.	FREQUI	NCY	SAM	PLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANA	LYSIS	TY	PE
						30-DAY	DAILY						
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-6	8)	(69-	-70)
	SAMPLE								l .				
	MEASUREMENT					89	98		1	Continu	ious	Contir	nuous
	PERMIT												
TEMPERATURE	REQUIREMENT		and the second		计算计算表示	90	95	° F	9	THE R		H	
	SAMPLE	STOREGOISTON WAS THE SOURCE CONTROL	## CONTROL OF THE PROPERTY OF						Springs sweetings () 23	Cathair Stream 1997 No. 2007 Co.			21_11_121/5 GOVERN
	1				0.5		7.0		0	.		1	
	MEASUREMENT		Commence of the commence of th		6.5		7.2	-	U -5-3	Continu	ious	Contin	uous
	PERMIT								4 16	4 4 4	3543		the H. H
pН	REQUIREMENT				6.5		8.6	STD/UNITS	67.62				
	SAMPLE												
	MEASUREMENT					10	10		0	Once/Mo	onth	Comp	osite
	PERMIT		Conglication paragraphe		glowly grow the grown	Section 2015			Township in			Odinp	
TOTAL CORDER	12 11 11 12 12 12 12 12 12 12 12 12 12 1		44 14 1				LE SEC. 28	,	- 11			10.0%	通 年 4
TOTAL COPPER	REQUIREMENT				Assistant visit	66	108	μg/L	胴		Traffic E. D		20
	SAMPLE					ļ.							
	MEASUREMENT					190	190	j	0	Once/Mo	onth	Comp	osite
	PERMIT	1 JE 11								4 譯			
TOTAL ZINC	REQUIREMENT	LINE FOR	and the set			1545	1770	μg/L	100		• 4 12 5	a waleya	
	SAMPLE	- 1558 (100 CPP 1) (100 (4) (100 CP (100 CP			7	the control of the co		F3:-	A PERSONAL SALES	2000 P. C. S. W. C. C. C. C. C. C. C. C. C. C. C. C. C.	Cognition Commission	######################################	C ASSESSED STORY
	MEASUREMENT					Commence and the second	Process Service Vol. 1877 (Street No.		o munua/artisir	widten eine Centre Constan	h / Control of the second		1984
	PERMIT	3368 444 6	1.888846							37.163.44		基本点法 :	
	REQUIREMENT	7.7										1455	
	SAMPLE												
	MEASUREMENT					1					•		
	PERMIT	1.40				GE BOOKEN.			S40.5	-0542		A WELL	
	\$15.50 \ \-1.50 \\ \$1.50 \\ \text{\$1.50 \\ \t		45.00						12012 3012				
	REQUIREMENT										Approximation (in		
	SAMPLE							1	1				
	MEASUREMENT]					
	PERMIT	94 BEE 1	上世 D 200年5				45 - 24 - 53		4	8 46 6			
	REQUIREMENT	2.5	2.6			17/16/19			alian Sa		建作品	7.5	14 1 F
NAME/TITLE PRINCIPAL EXECUTIVE		I CERTIFY UNDER	R PENALTY OF LAW	THAT I HA'	VE PERSONALLY EX	AMINED		1	TE	LEPHONE	DATE		an an exploration of the part of the last
		4			BMITTED HEREIN AN				,				
110		4			DIATELY RESPONSI				ŀ				
1/1/	els.	OBTAINING THE	INFORMATION. I BEI	LIEVE THE	SUBMITTED INFORM	NOITA				1			
1		IS TRUE, ACCUR	ATE AND COMPLETE	E. I AM AW	ARE THAT THERE AF	RE SIG-				į			
	<u> </u>				INFORMATION INCL								
LANCE IHAK		1			SEE 18 U.S.C. 1001								
Manager, Engineering and Mai	ntenance	4			ay include fines up to	\$10,000	SIGNATURE OF PRINCIPAL EX		AREA				
TYPE OR PRINTED		and or maximum	imprisonment of bet	ween 6 mo	nth and 5 years)		OFFICER OR AUTHORIZED AC	BENT	CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

The temperature exceeded the 95 °F Daily Maximum Limit on June 25, 2004

StarKist Seafood, Inc.



P.O. Box 368 Pago Pago, Tutulla Island American Samoa 96799

Telephone: 604 544-1835 Facsimile: 664 644-2440

April 21, 2004

Mr. Carl L. Goldstein U. S. EPA Region 9 Pacific Insular Area Program (CMD-5) 75 Hawthorne Street San Francisco, CA 94105

Mr. Peter Peshut Director, ASEPA Office of the Governor EOB Utulei, American Samoa 96799

Gentlemen:

Re: <u>Discharge Monitoring Report for the Months of January, February and March of 2004,</u> under NPDES No. AS0000019 as issued to Star Kist Samoa, INC.

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of January, February and March of 2004.

Star Kist Samoa met all Effluent limits except for the Temperature.

The Temperature exceeded the 95°F Daily Maximum Limit on March 19, 2004.

Operators were trained again on the recently installed Engineering change's that have been implemented to correct the Temperature exceedence problem.

Sincerely

Lance Ihaka

Manager, Engineering and Maintenance

LI \ ls : \ npdes \samoa

Attachments:

cc: Mr. Alan Ota

Mr. Steven L. Erickson Mr. Phil Thirkell

Wastewater Summary Report for the month of January 2004

					Max			Oil &C	Grease	T	ss	Т	Р	Т	N	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1		0.294182			84												
2		0.404371			82												
3	[0.509172	17.2	1.1	81	6.7	6.7										
4		0.846556	124.7	2.8	82	6.7	6.7										
5		0.546061	34.4	1.5	82	6.7	6.7										
6		0.303844	8.6	1.4	82	6.7	6.7										
7		0.264605	17.2	0.5	80	6.7	6.7										
8		0.295083			81												
9		0.096475	12.9		81	6.7	6.7										
10		0.511888			80												
11		0.411051			80												
12	510.7113	1.269998	232.2	8.2	88	6.7	6.8										
13	565.1445	1.496611	430.0	11.4	90	6.7	7.1	20.3	252.7	93.3	1161.2	14.4	179.2	80.0	995.7	21.4	464.2
14	612.5238	1.699591	395.6	10.4	90	6.7	7.3					13.2	186.6	60.0	848.0		
15	523.3400	1.759202	365.5	10.7	90	6.7	6.8										
16	590.0655	1.675097	313.9	9.3	90	6.7	6.9										
17	621.7635	1.603050	279.5	9.2	92	6.7	6.8										
18		1.077240	167.7	5.5	93	6.7	6.7										
19	606.4875	1.526043	283.8	9.5	83	6.7	8.4										
20	609.9133	1.546060	288.1	9.7	83	6.6	8.3										
21	591.5303	1.708340	313.9	13.7	88	6.6	6.7	24.3	345.2	76.7	1089.6	16.6	235.8	80.0	1136.5	34.2	
22	601.8468	1.681900	442.9	13.2	85	6.6	6.7					12.6	176.2	50.0	699.3		
23	602.0818	1.637164	447.2	14.3	84	6.7	6.8										
24	609.9410	1.471499	227.9	10.9	87	6.6	6.8										
25		1.146697	176.3	6.2	86	6.7	6.7										
26	608.2918	1.531397	408.5	16.6	80	6.7	6.7										
27	603.9693	1.801468	460.1	11.0	80	6.7	6.9	7.8	116.9	88.0	1318.3	10.1	151.3	30.0	449.4	26.2	
28	571.7260	1.592779	434.3	12.5	84	6.8	6.9					12.9	170.9	50.0	662.3		
29	545.9780	1.719332	391.3	11.7	86	6.7	6.9										
30	584.9970	1.342278	249.4	8.6	86	6.7	6.9										
31		0.726369	47.3	2.0	91	6.7	6.8										
тот	9960.3114	34.495403	6570.4	211.9					714.8		3569.1		1100.0		4791.2		
AVG	585.9007	1.112755	252.7	8.2	85			17.5	238.3	86.0	1189.7	13.3	183.3	58.3	798.5	27.3	464.2

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

NAME	STAR KIST SAMOA, Inc	
ADDRESS	P. O. BOX 368	
	PAGO PAGO AMERICAN SAMOA 96799	

(2-16) AS0000019 PERMIT NUMBER 001
DISCHARGE NUMBER

OCATION			-	i KOW	(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	J NOTE: Re	ad instructions before completing	ng this form.
PARAMETER		(3 Card Only) QUANT	ITY OR LOADING		(4 Card Only) QU	ALITY OR CONCENTRA	ATION		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY	DAILY	l		30-DAY	DAILY				
	CAMBLE	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE MEASUREMENT	1.112755	1.801468	1					0	Continuous	Recorder
	PERMIT	1.112733	1.001400						200 NO.	Continuous	Recorder
FLOW	REQUIREMENT		2.9	mgd						•	
	SAMPLE	777 (7)(0)	a patentia y sua a supra a qui	iii iii ga	AND ASSESSMENT STREET, NOT THE PROBLEM.		E TOTAL SALVANIA MARKET SALVANIA			Combiners, 1. Printings, J. Br. And J.	nese, Pradition maca. Te warm
	MEASUREMENT				464.2	464.2	464.2		0	Once/Month	Composite
	PERMIT		\$1.00 (\$2.00 p.) 40 p. 100	76					388		
BOD5	REQUIREMENT				N/A	N/A	N/A	mg/l			
	SAMPLE			1	19.40						
	MEASUREMENT	1189.7	1318.3	ļ	76.7	86.0	93.3		0	Once/Week	Composite
	PERMIT	Maria de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de	1/02								
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l		a	
	SAMPLE										
	MEASUREMENT	238.2	345.2		7.8	17.5	24.3		0	Once/Week	Grab (2)
	PERMIT										147
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l		* *	• •
	SAMPLE										
	MEASUREMENT	183.3	235.8		10.1	13.3	16.6		0	One Set/Month (3)	Composite
	PERMIT		19 (19 H)								
OTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l	2700000	н	*
	SAMPLE	700.5	1400.5			500					
	MEASUREMENT	798.5	1136.5	***	30.0	58.3	80.0		0	One Set/Month (3)	Composite
TOTAL NITROCEN	PERMIT	4000	0400	16 - /-!	ALIA .	Au/A		/I			
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	" N/A	N/A	mg/l	Shiptorial	GIEBRED AND STREET	
	SAMPLE MEASUREMENT				21.4	27.3	34.2		0	Once/Week	Composite
	PERMIT		200 - 200 sp. 200 sp. 100 sp.	le l	21.4	21.3	34.2			Once/week	Composite
TOTAL AMMONIA	REQUIREMENT				N/A	N/A	133	mg/l	1.24		
IE / TITLE PRINCIPAL EXECUTIVE OFFI	Character is a second s	LCERTIEY LINDS	R PENALTY OF I	I AW THAT	HAVE PERSONAL			mg/i	TEL	EPHONE DATE	31.
ETTILETAMON AL EXCOUNTE OTTI	OEK				SUBMITTED HER			01	1	I DATE	
					MEDIATELY RESP			9///	1		
					THE SUBMITTED IN		1.6	lelle	_		
					AWARE THAT THE LSE INFORMATION						
LANCE IHAKA					ENT SEE 18 U.S.C.						İ
Manager, Engineering and Ma	aintenance	J			s may include fines		SIGNATURE OF PRINCIPAL EX	ECUTIVE	AREA		
TYPE OR PRINTED		•			month and 5 years	•	OFFICER OR AUTHORIZED AG	ENT	CODE	NUMBER YEAR	MO DA

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc. **ADDRESS** P. O. BOX 368

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

(2-16)AS0000019 PERMIT NUMBER

(17-19) 001 DISCHARGE NUMBER

FACILITY: LOCATION:

PAGO PAGO AMERICAN SAMOA 96799

MONITORING PERIOD YEAR MO YEAR MO DAY FROM 2004 01 01 TO 2004 01 31

OCATION:			-	FRON			2004 01	31	j		
					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)		ead instructions before comple	
PARAMETER	1	(3 Card Only) QUANTI				ALITY OR CONCENTRA			NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53) 30-DAY	(54-61) DAILY	1	EX	OF ANALYSIS	TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE										
	MEASUREMENT					85	93		0	Continuous	Continuous
	PERMIT	2/4/4/4-2			and the second second						
TEMPERATURE	REQUIREMENT					90	95	°F			
	SAMPLE										
	MEASUREMENT				6.6		8.4		0	Continuous	Continuous
На	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS			
P	SAMPLE		Section of the sectio				* ************************************	0.15/0.11/10	30000000	1981-129 NEORISE BESCHOOL SE AMOUNT A A 4120 Y	
	MEASUREMENT					11.0	11.0		0	Once/Month	Composite
	PERMIT	dropping and the									
TOTAL COPPER	REQUIREMENT	AND THE SECTION	1 4 7 7 7 7 7 7 7			66	108	μg/L			
	SAMPLE										
	MEASUREMENT					299.0	299.0		0	Once/Month	Composite
	PERMIT				2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	医 使是基础管	1.866				
TOTAL ZINC	REQUIREMENT					1545	1770	μg/L		р в	1000000
	SAMPLE										
	MEASUREMENT									•	
	PERMIT					ALC: PER S.C.					
	REQUIREMENT	Times and	28.5						discolation		
	SAMPLE						İ				
	MEASUREMENT	ESSANDER CONTRACTOR				Toler of the second	The second of th		200000000	I	
	PERMIT								778-46		
	REQUIREMENT								19.00		
	SAMPLE MEASUREMENT		1								
	PERMIT	Add Control				annot see a see a see a see a see a see a see a see a see a see a see a see a see a see a see a see a see a se		-		POTATE STATE OF THE PARTY OF THE	
	REQUIREMENT	reaction in			2				27.2		
AME/TITLE PRINCIPAL EXECUTIVE		I CERTIFY UNDE	R PENALTY OF L	AW THAT I	HAVE PERSONAL	LY EXAMINED		1	TE	LEPHONE DATE	-0 1 C 25 (1980)
		(SUBMITTED HER		//				
					MEDIATELY RESP						
					THE SUBMITTED IN		90.5				
					AWARE THAT THE		-				
LANCE IHAK	Α.	1			ENT SEE 18 U.S.C.			•			
Manager, Engineering and M					s may include fines		SIGNATURE OF PRINCIPAL EX	(ECUTIVE	AREA	"	
TYPE OR PRINTED		and or maximun	n imprisonment of	between 6	month and 5 years)	OFFICER OR AUTHORIZED AC	ENT	CODE	NUMBER YEAR	MO D

Wastewater Summary Report for the month of February 2004

					Max			Oil & 0	Grease	T	ss	7	ΓP	Т	N.	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1		0.779371	125.0	2.7	76	6.7	6.8										
2	592.0125	1.343618	296.7	9.3	81	6.7	6.8										
3	554.0913	1.609239	494.5	10.5	83	6.7	7.0										
4	607.1478	1.663352	451.5	11.4	81	6.6	6.9	45.6	630.8	158.0	2185.5	11.2	154.9	70.0	968.3	34.1	
5	618.7470	1.619001	498.8	10.7	81	6.7	6.9					13.0	175.0	90.0	1211.7		
6	616.8620	1.532700	395.6	9.3	89	6.8	6.9										
7		0.701139	180.6	4.2	90	6.8	6.9										
8		0.675669	94.6	4.1	75	6.7	6.8										
9	597.7755	1.640953	369.8	10.5	83	6.7	6.8										
10	619.1208	1.883306	485.9	10.7	84	6.8	7.2	7.7	120.6	84.7	1326.5	10.6	166.0	80.0	1252.9	24.4	
11	618.2985	2.001037	412.8	10.6	85	6.7	7.1					12.4	206.3	90.0	1497.7		
12	624.6625	1.898483	382.7	11	82	6.7	7.0										
13	575.5935	1.782007	391.3	10.5	84	6.7	6.9										
14	603.2030	1.502243	391.3	8.3	85	6.7	6.8										
15		0.640036	176.3	4.4	89	6.7	6.8										
16		0.832818	154.8	4.3	77	6.7	6.7										
17	570.6395	1.382584	326.8	9.9	82	6.7	7.0										
18	535.7560	1.488173	434.3	10.5	86	6.7	7.0	8.8	108.9	89.3	1105.1	13.3	164.6	90.0	1113.8	24.6	418.0
19	539.7920	1.401327	387.0	11.4	86	6.7	6.8					15.9	185.3	80.0	932.3		
20	542.9633	1.598035	378.4	10.5	85	6.7	6.8										
21	605.1978	1.448577	292.4	8.5	86	6.7	6.8										
22		1.065174	193.5	6.4	85	6.7	6.7										
23	575.1815	1.402556	339.7	9.8	86	6.7	6.9										
24	616.4170	1.544295	460.1	12.4	87	6.7	6.8										
25	582.5323	1.470174	421.4	11.4	86	6.7	6.8	14.7	179.7	94.0	1149.2	14.7	179.7	90.0	1100.3	34.2	
26	613.4158	1.595088	442.9	11.2	84	6.7	6.8					13.0	172.4	80.0	1061.2		
27	621.1250	1.480876	348.3	9.7	86	6.7	7.0										
28		0.582171	73.1	2.2	92	6.7	6.8										
29		0.884738	176.3	5.5	81	6.7	6.7										
тот	12430.5346	39.448740	9576.4	251.9					1040.0		5766.3		1404.2		9138.2		
AVG	591.9302	1.360301	330.2	8.7	84			19.2	260.0	106.5	1441.6	13.0	175.5	83.8	1142.3	29.3	418.0

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

NAME	STAR KIST SAMOA, Inc	
ADDRESS	P. O. BOX 368	
·	PAGO PAGO AMERICAN SAMOA 96799	

(2-16)
AS0000019
PERMIT NUMBER

001
DISCHARGE NUMBER

FACILITY

| MONITORING PERIOD | YEAR | MO | DAY | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | MO | DAY | PERIOD | YEAR | YEAR | MO | DAY | PERIOD | YEAR | YEAR | MO | DAY | PERIOD | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YE

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Re	ead instructions before completin	
PARAMETER		(3 Card Only) QUANTIT			1	JALITY OR CONCENTE			NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE	AVEIGICE	N. D. W. C.						1		
	MEASUREMENT	1.360301	2.001037						0	Continuous	Recorder
	PERMIT										
FLOW	REQUIREMENT		2.9	mgd					WITE FACTOR	R Company	
	SAMPLE										
	MEASUREMENT			1	418.0	418.0	418.0		0	Once/Month	Composite
	PERMIT								A Fair-		
BOD5	REQUIREMENT				N/A	N/A	N/A	mg/l	ENDER CA		
	SAMPLE	1444.0	0405.5		04.7	400.5	450.0				
,	MEASUREMENT	1441.6	2185.5		84.7	106.5	158.0		0	Once/Week	Composite
TSS	PERMIT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l			
155	REQUIREMENT	2990	3 F336	ibs/day	TANKA MARKA	1 WA	N/A	mg/i	September 1		
	MEASUREMENT	260.0	630.8	İ	7.7	19.2	45.6		0	Once/Week	Grab (2)
	PERMIT	200.0	000.0			10.2					Section 12
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l	5.1		
	SAMPLE	A-50	XX-100000000000000000000000000000000000		AND ASSESSMENT OF THE PARTY OF	N. Santa and San			Wood Kilondo I		
	MEASUREMENT	175.5	206.3		10.6	13.0	15.9		0	One Set/Month (3)	Composite
	PERMIT	13.45									
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l		, , , , , , , , , , , , , , , , , , ,	
	SAMPLE		3								
	MEASUREMENT	1142.3	1497.7		70.0	83.8	90.0		0	One Set/Month (3)	
	PERMIT		TEMPORE STORY								
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
	SAMPLE MEASUREMENT				24.4	29.3	34.2		0	Once/Week	Composite
	PERMIT				24.4	29.3	34.2			Once/vveek	Composite
TOTAL AMMONIA	REQUIREMENT	医肝疗肝脏血液			N/A	N/A	133	mg/l			
ME / TITLE PRINCIPAL EXECUTIVE OFF	Property of the state of the st	I CERTIFY UND	ER PENALTY OF I	LAW THAT	I HAVE PERSONAL		THE CONTRACTOR OF THE CONTRACT	1119/1	TE	LEPHONE DATE	75.1 To . (1981) 1991 1995 1997 1996 1999
					N SUBMITTED HER		///	a			
					MEDIATELY RESP		1/1			1	
					THE SUBMITTED IN AWARE THAT THE		1.		1		
					LSE INFORMATION						
LANCE IHAKA					IENT SEE 18 U.S.C.						
Manager, Engineering and Ma	aintenance	33 U.S.C. 1319 (Penalties under ti	hese statute	es may include fine:	s up to \$10,000	SIGNATURE OF PRINCIPAL EX		AREA		
TYPE OR PRINTED	NAME AT LONG / D 1	and or maximum	n imprisonment o	f between 6	month and 5 years	:)	OFFICER OR AUTHORIZED AG	ENT	CODE	NUMBER YEAR	MO DAY

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

NAME

FACILITY

LOCATION

STAR KIST SAMOA, Inc.

ADDRESS P. O. BOX 368 PAGO PAGO AMERICAN SAMOA 96799 NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

> (17-19) (2-16)

AS0000019 PERMIT NUMBER

001 DISCHARGE NUMBER

MONITORING PERIOD YEAR MO DAY YEAR MQ DAY 2004 02 2004 02 29 FROM 01 TO (28-29) (20-21) (22-23) (24-25) (26-27) (30-31) NOTE: Pead instructions before completing this form

PARAMETER						(20-21) (22-23) (24-25) (26-27)			(30-31)	NOTE: Re	ead instructions before complet	
39 DAILY MAXIMUM AVERAGE MAXIMUM AVERAGE MAXIMUM AVERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAYERAGE MAXIMUM MAXIM	PARAMETER		(3 Card Only) QUANTIT	TY OR LOADING		(4 Card Only) QL	JALITY OR CONCENTRA	ATION		1 1		1
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PH REQUIREMENT 6.6 7.2 0 Continuous PERMIT 6.5 8.6 STD/UNTS MEASUREMENT 6.5 8.6 STD/UNTS TOTAL COPPER FORMERT 6.5 8.6 STD/UNTS TOTAL COPPER FORMERT 6.5 8.6 STD/UNTS TOTAL COPPER FORMERT 6.5 8.6 STD/UNTS PERMIT 7 FORMERT	TEMPERATURE	REQUIREMENT					90	95	°F	Attraction of the control of the con		
PERMIT SAMPLE SAMPLE COMPOSITE PERMIT SAMPLE		SAMPLE										
PH REQUIREMENT SAMPLE MEASUREMENT 66.5 STO/UNITS TOTAL COPPER FEMIT FERMIT TOTAL ZINC SAMPLE MEASUREMENT PERMIT REQUIREMENT R		MEASUREMENT				6.6		7.2]	0	Continuous	Continuous
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TOTAL COPPER PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT		SAMPLE										
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TYPE OR PRINTED and or maximum imprisonment of between 6 month and 5 years) officer or AUTHORIZED AGENT CODE NUMBER YEAR MO DAY	1		33 U.S.C. 1319 (/	Penalties under the	ese statut	es may include fine	s up to \$10,000	SIGNATURE OF PRINCIPAL EXECUTIVE				
	TYPE OR PRINTED		and or maximun	n imprisonment of	between	6 month and 5 year	s)				NUMBER YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Form Approved

OMB No. 2040-0004

Expires 3-31-88

Wastewater Summary Report for the month of March 2004

					Max			Oil &C	Grease	T	ss	Т	P	7	ΓN	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1	614.5038	1.440026	279.5	9.5	94	6.7	7.3										
2	607.1623	1.666700	399.9	10.4	92	6.7	7.3										
3	633.7785	1.701594	434.3	10.8	91	6.7	7.2	15.0	212.3	97.3	1376.8	13.8	195.3	90.0	1273.5	32.4	
4	607.1473	1.535777	399.9	12.5	92	6.7	7.1					14.5	185.2	80.0	1021.7		
5	598.4328	1.571580	369.8	9.0	89	6.7	6.9										
6		0.708781	129.0	3.3	85	6.7	6.8										
7		1.123496	189.2	6.4	75	6.7	6.8										
8	620.0680	1.449102	395.6	10.0	85	6.7	6.8										
9	616.1173	1.668989	421.4	13.2	88	6.7	7.5	19.1	265.1	106.0	1471.2	15.3	212.4	80.0	1110.3	31.7	480.3
10	562.6875	1.653980	485.9	13.9	88	6.7	7.5					13.5	185.7	90.0	1237.9		
11	630.6543	1.827494	455.8	12.3	86	6.7	7.0										
12	575.8720	1.451493	335.4	8.5	88	6.7	6.8										
13		0.500395	73.1	2.1	90	6.7	6.7										
14		1.219120	193.5	5.0	78	6.7	6.7										
15	606.8628	1.705231	344.0	10.5	88	6.7	6.8										
16	602.7983	1.660952	451.5	12.5	90	6.5	6.8	4.9	67 <i>.</i> 7	68.0	939.2	10.6	146.4	90.0	1243.1	25.9	
17	602.7650	1.813473	412.8	11.1	88	6.7	6.8					12.7	191.5	90.0	1357.3		
18	602.3630	1.764176	503.1	12.4	88	6.7	6.8										
19	573.6963	1.625830	387.0	11.1	100	6.7	6.8										
20		0.579827	25.8	0.9	85	6.7	6.7										
21		0.694193	141.9	5.1	78	6.7	6.7										
22	600.5668	1.453031	288.1	12.2	90	6.7	6.7										
23	536.3785	1.617885	387.0	11.4	88	6.7	6.7										
24	602.0645	1.737134	425.7	12.1	88	6.7	6.9	25.3	365.5	107.3	1550.1	12.1	174.8	80.0	1155.7	25.1	
25	568.7380	1.967232	447.2	12.0	88	6.7	6.8					10.3	168.5	80.0	1308.8		
26	563.0068	1.686154	296.7	10.0	88	6.7	6.8										
27		0.647948	94.6	2.6	90	6.8	6.8										
28		0.602626	137.6	4.6	76	6.7	6.7										
29	614.3528	1.406001	331.1	11.0	88	6.7	6.9										
30	601.1125	1.626769	352.6	10.9	89	6.7	7.1	15.8	213.7	112.7	1524.6	12.3	166.4	60.0	811.7	26.4	
31	591.9393	1.836910	322.5	11.8	88	6.8	6.9					13.3	203.2	80.0	1222.1		
TOT	13733.0684	43.943899	9911.5	289.1					1124.3		6861.9		1829.4		11742.1		
AVG	597.0899	1.417545	319.7	9.3	87			16.0	224.9	98.3	1372.4	12.8	182.9	82.0	1174.2	28.3	480.3

Facility Name/Location if different)

NAME

ADDRESS

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

STAR KIST SAMOA, Inc	
P. O. BOX 368	
PAGO PAGO AMERICAN SAMOA 96799	

(2-16)
AS0000019
PERMIT NUMBER

001
DISCHARGE NUMBER

FACILITY

| MONITORING PERIOD | YEAR | MO | DAY | YEAR | MO | DAY | TO | 2004 | 03 | 31 |

		(20-21) (22-23) (24-25) (3 Card Only) QUANTITY OR LOADING (4 Card Only) QUALITY OR CONC					(26-27) (28-29)	(30-31)	NOTE: R	ead instructions before complet	ng this form.
PARAMETER		(3 Card Only) QUAN	TITY OR LOADING		(4 Card Only) QUA	LITY OR CONCENTRATION	ON		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY	DAILY	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMON	UNITS	(62-63)	(04-00)	(65-70)
	MEASUREMENT	1.417545	1.967232						0	Continuous	Recorder
	PERMIT	**************************************	1.507252		THE DAILS AND S		a supplication of the supplication of		234-92.31	2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	
FLOW ·	REQUIREMENT		2,9	mgd							•
12011	SAMPLE	W 4 Charles and Co. T. Land	A CONTRACTOR OF THE PROPERTY O	m.gu			The second of th		24-45-44-12-1	The Service Springers and the service of the servic	A TANK TO LOCATED SOCIETY OF THE AMENDMENT
	MEASUREMENT				480.3	480.3	480.3		0	Once/Month	Composite
	PERMIT		Fac. 15		100.0		- 1000 C				
BOD5	REQUIREMENT				N/A	N/A	N/A	mg/l			
BOD3	SAMPLE	SPOSIAL SERVICES		1	TAX SUMMARKED Y YOUNG	12012049033427741 1 1 2 2 1 1 1 1 2 2 1 1 1 1 1 2 2 1 1 1 1 1 2 2 1 1 1 1 1 2 2 1		1119/1	-Besidenselee	Edition of the continuous and assessed as	SCHOOL STATE OF STATE
	MEASUREMENT	1372.4	1550.1		68.0	98.3	112.7		0	Once/Week	Composite
	PERMIT	1012.4	1000.1	1	2014 St. 2014 St.				- Walter	Entransia de la Filia	
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l			
100	SAMPLE	4500		iborday		was a series	TO SHOW A SHARE TO AND A SHARE TO SHARE THE SH		2012/88/2000		
	MEASUREMENT	224.9	365.5		4.9	16.0	25.3		0	Once/Week	Grab (2)
	PERMIT	224.5	300.0		1.0	CLEANING AND COMPANY	- And the second				
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l		June 18 M The State of the Stat	
OIL & GREAGE	SAMPLE	100	1,00	ibo. day	10-10 TO 10	2, 45 - CONTROL 112 - CONTROL 125 - CONTRO	MINESTALLED FORM ASSESSED		1 Section of the Company	IN Security Committee Comm	SERVICE OF STREET, SERVICE AND
	MEASUREMENT	182.9	212.4		10.3	12.8	15.3		0	One Set/Month (3)	Composite
	PERMIT	102.0	7200,727 1200			. 					
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l			•
	SAMPLE		The Control of the Co	,,	S SHEET HERE AND SHEET SHEET MANUAL SHEET		8.3 to 8.7% (Sept. 1947) 1970 (1984) 2014 (Sept. 2014) 2014 (Sept. 2014) 2014 (Sept. 2014) 2014 (Sept. 2014) 2			Letter to the second se	A. T. T. T. T. T. T. T. T. T. T. T. T. T.
	MEASUREMENT	1174.2	1357.3		60.0	82.0	90.0		0	One Set/Month (3)	Composite
	PERMIT		(W 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l		• • •	•
	SAMPLE		The comment of the control of the co	,	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				S.C. Simmon		
1	MEASUREMENT	1			25.1	28.3	32.4		0	Once/Week	Composite
	PERMIT								35453421		
TOTAL AMMONIA	REQUIREMENT		(1996年)		N/A	N/A	133	mg/l			
NAME / TITLE PRINCIPAL EXECUTIVE OFFI	CONTRACTOR OF CHARLES	I CERTIFY UNDER	PENALTY OF LAW	V THAT I HA	VE PERSONALLY EX	The second secon	Name of the Association of the A		TE	LEPHONE DATE	Col. Col. S. S. September Market Printers and Market St. St.
		AND AM FAMILIA	R WITH THE INFOR	MATION SU	IBMITTED HEREIN AN	ND BASED	//	_			
			DIATELY RESPONSI		1/19		†				
					SUBMITTED INFORM		R. M	10			
					ARE THAT THERE AF		1				
LANCE IHAKA					LSE INFORMATION INCLUDING ENT SEE 18 U.S.C. 1001 AND						
Manager, Engineering and I	Maintenance	1					SIGNATURE OF PRINCIPAL EX	CECUTIVE	AREA		
TYPE OR PRINTED		and or maximum	imprisonment of be	tween 6 mo	nth and 5 years)		OFFICER OR AUTHORIZED AG	ENT	CODE	NUMBER YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

2

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

 Facility Name/Location if different)

 NAME
 STAR KIST SAMOA, Inc

 ADDRESS
 P. O. BOX 368

 PAGO PAGO AMERICAN SAMOA 96799

(2-16)
AS0000019
PERMIT NUMBER

(17-19) 001 DISCHARGE NUMBER

MONITORING PERIOD DAY YEAR MO DAY YEAR MO 03 2004 03 31 FROM 2004 01 TO (30-31) (20-21) (22-23) (24-25) (26-27) (28-29)

NOTE: Read instructions before completing this form. PARAMETER (3 Card Only) QUANTITY OR LOADING 4 Card Only) QUALITY OR CONCENTRATION FREQUENCY SAMPLE OF ANALYSIS (38-45) (46-53) (54-61) EX TYPE (32-37) (46-53)(54-61)30-DAY DAILY MAXIMUM **AVERAGE** MAXIMUM UNITS MINIMUM **AVERAGE** UNITS (62-63)(64-68)(69-70)SAMPLE 87 100 Continuous Continuous MEASUREMENT PERMIT 90 95 ۰F **TEMPERATURE** REQUIREMENT SAMPLE 6.5 7.5 0 Continuous Continuous MEASUREMENT PERMIT 8.6 STD/UNITS pН 6.5 REQUIREMENT SAMPLE 52.0 52.0 Composite Once/Month MEASUREMENT PERMIT 108 66 μg/L TOTAL COPPER REQUIREMENT SAMPLE 206.0 206.0 Once/Month Composite MEASUREMENT PERMIT 1545 1770 TOTAL ZINC μg/L REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT: REQUIREMENT CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED TELEPHONE NAME/TITLE PRINCIPAL EXECUTIVE OFFICER DATE AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIG-NIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING LANCE IHAKA THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND Manager, Engineering and Maintenance 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 SIGNATURE OF PRINCIPAL EXECUTIVE AREA and or maximum imprisonment of between 6 month and 5 years) CODE NUMBER YEAR DAY OFFICER OR AUTHORIZED AGENT TYPE OR PRINTED

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

UNTIL SUPPLY IS EXHAUSTED.

StarKist Seafood, Inc.

- K.C. Barrille - Elico Pego, varata isizuo - American Senser (1971).

Telephone : bud 944-1236. Telephone : 601-611-2446.

February 04, 2005

Mr. Carl L. Goldstein U. S. EPA Region 9 Pacific Insular Area Program (CMD-5) 75 Hawthorne Street San Francisco, CA 94105

Mr. Peter Peshut, Director, ASEPA Office of the Governor EOB Utulei, American Samoa 96799

Gentlemen:

Re: <u>Discharge Monitoring Report for the Months of October, November and December of 2004, under NPDES No. AS0000019</u> as issued to Star Kist Samoa, INC.

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of October, November and December of 2004.

Star Kist Samoa met all Effluent limits.

Sincerely

Lance Ihaka

Manager, Engineering and Maintenance

LI \ ls : \ npdes \samoa

Attachments:

cc: Mr. Alan Ota

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.

Mr. Phil Thirkell

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR) Form Approved
OMB No. 2040-0004
Expires 3-31-88

Facility Name/Location if different)

NAME STAR KIST SAM

 NAME
 STAR KIST SAMOA, Inc

 ADDRESS
 P. O. BOX 368

(2-16)
AS0000019
PERMIT NUMBER

(17-19)
001
DISCHARGE NUMBER

FACILITY LOCATION

PAGO PAGO AMERICAN SAMOA 96799

| MONITORING PERIOD | YEAR | MO | DAY | YEAR | MO | DAY | TO | 2004 | 10 | 31 |

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)		ead instructions before completing	
PARAMETER		(3 Card Only) QUANT			Γ "	ALITY OR CONCENTRA			NO.	FREQUENCY	
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	SAMPLE TYPE (69-70) Recorder Composite Grab (2) Composite T Composite T Composite T Composite T Composite
		30-DAY	DAILY	LIMITE	************	30-DAY	DAILY	UNITE	(00.00)	(0.4.50)	(00.70)
	CANDIE	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	SAMPLE TYPE (69-70) Recorder Composite Composite Grab (2) Composite Composite Composite Composite
	SAMPLE	4.050940	1.740288			İ			0	C	SAMPLE TYPE (69-70) Recorder Composite Grab (2) Composite Composite Composite T Composite
	MEASUREMENT	1.059849	1.740200	57	Fearer Control of Control Control	that a remark to the second			U	Continuous	Recorder
FLOW	PERMIT		THE RESERVE OF THE PROPERTY OF						-010 × 0115 ac (01-0116 3: 03:612.8		464 414
FLOW	REQUIREMENT	単位 17人生 7人生 10年 日	2.9	mgd	77,424	1964 E-1 (2)					4.00 克克勒是2500 ¥50
	SAMPLE			1	400.0	400.0	100.0				_
	MEASUREMENT	CARTES ATT CARE SE WITCHISOMETRICS	Washington and State Co. Co., 1986.	-	426.3	426.3	426.3		0	Once/Month	Composite
	PERMIT								9 EE . 1 2005		
BOD5	REQUIREMENT		24,444,022		N/A	N/A	N/A	mg/l			
	SAMPLE									i	
	MEASUREMENT	840.3	970.9	_	58.7	66.7	78.7		0	Once/Week	Composite
	PERMIT					mail # 14 a			West (page)		MARK SALES
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l	1019174	**************************************	
	SAMPLE										
	MEASUREMENT	131.3	162.9	İ	8.2	10.4	12.6		0	Once/Week	Grab (2)
	PERMIT		The Ballion	}					44		
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l	4567	• ****	
	SAMPLE	The Control of the Co	The second secon	<u> </u>		and the second s	And the second s		1		
	MEASUREMENT	158.4	177.6		9.8	12.1	14.1		10	One Set/Month (3)	Composite
	PERMIT	K. 27 E. P.		6	4-1-6-24-22-22-22-22-22-22-22-22-22-22-22-22-				72.67.61		
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l	Scriptoria i		
1017.2111001110100	SAMPLE			,			The state of the s	5	ARRENGES (FO.)	COLOR DE LA COMPUNITATION DE LA COLOR DE L	AND DESCRIPTION AND DESCRIPTION OF STREET
	MEASUREMENT	979.2	1143.3		63.0	74.7	85.0		10	One Set/Month (3)	Composite
	PERMIT	373.2	1140.0		00.0				7747388	STATE OF THE SECOND STATE	composite
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l	Statistic Statistics		
TOTAL MITHOGEN	SAMPLE	THE LEVY	THE LUCKSTON	ibarday	יאינו	IVA	The second secon	IIIg/I	18.70/E	THE PARTY OF THE P	TO THE PARTY OF TH
	l				21.3	25.8	21 5		0	OnnelMank	Commonite
	MEASUREMENT				21.3	20.8	31.5			Once/Week	Composite
TOTAL AMMOUNT	PERMIT				1.00			//			
TOTAL AMMONIA	REQUIREMENT	Total Paris	25.500	AVA/ TILA T	N/A	N/A	133	mg/l	PA-ANA	24.27.24.24.24.24.24.24.24.24.24.24.24.24.24.	Para Maria Maria Co
ME / TITLE PRINCIPAL EXECUTIVE OFFI	CER				I HAVE PERSONAL N SUBMITTED HERI				TEI	EPHONE DATE	
					MMEDIATELY RESP			/	4		
					THE SUBMITTED IN				ļ		
					AWARE THAT THE		6/				
					LSE INFORMATION		A STATE OF THE STA		İ		
LANCE IHAKA		THE POSSIBILIT	Y OF FINE AND I	MPRISONN	IENT SEE 18 U.S.C.	1001 AND					
Manager, Engineering and Maintenance		٠ .			es may include fines	•	SIGNATURE OF PRINCIPAL EX	ECUTIVE	AREA		
TYPE OR PRINTED		and or maximum	imprisonment o	f between 6	month and 5 years)	OFFICER OR AUTHORIZED AG	ENT	CODE	NUMBER YEAR	MO DAY

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

NAME	STAR KIST SAMOA, Inc	
ADDRESS	P. O. BOX 368	
	PAGO PAGO AMERICAN SAMOA 96799	

(2-16)AS0000019 PERMIT NUMBER

001 DISCHARGE NUMBER

YEAR

MONITORING PERIOD YEAR MO DAY FACILITY: FROM 2004 10 01 TO LOCATION: (20-21)

2004 10 31 (30-31) (22-23)(24-25)(26-27) (28-29) NOTE: Read instructions before completing this form.

DAY

MO

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: RE	ad instructions before comple	ang this form.
PARAMETER		(3 Card Only) QUANTI	TY OR LOADING		(4 Card Only) QU	ALITY OR CONCENTRA			NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
						30-DAY	DAILY				
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MUMIXAM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE							1			
	MEASUREMENT					83	93	4	0	Continuous	Continuous
	PERMIT					Salet Area (Salet					
TEMPERATURE	REQUIREMENT					90	95	°F	THE PARTY AND	Every Market	
	SAMPLE							1	1		
	MEASUREMENT				6.6		7.2	_	0	Continuous	Continuous
	PERMIT										Lindell Transcript
рH	REQUIREMENT				6.5		8.6	STD/UNITS	P-25007		A STATE OF THE STA
	SAMPLE										
	MEASUREMENT					<10	<10		0	Once/Month	Composite
	PERMIT						Zasantina za za	F	w Carrier w		
TOTAL COPPER	REQUIREMENT					66	108	μg/L			
TOTAL GOTTER	SAMPLE	C 1999, 400 C 1000 C 100	Neidelberg 2004				220000000000000000000000000000000000000		111107-10-1	AND 100 100 100 100 100 100 100 100 100 10	
	MEASUREMENT					229.0	229.0		0	Once/Month	Composite
ĺ	PERMIT	A., Van A						ë			
TOTAL ZINC	A THE SECOND OF THE PARTY OF TH					1545	1770	μg/L	ATTENDED.		
TOTAL ZINC	REQUIREMENT	Cont. 12.2				Parady Mariaba	The state of the s	Hg/L	0.00004,6000	##K. T. FREEDMANDS AND SV CA	5
	SAMPLE							1			
	MEASUREMENT	2 M. V. (2004) 2002 (AMARINE) (AMARINE)	100000000000000000000000000000000000000		udateleris de establishment (1994)			i.	1.000000	2-7-18-18-18-18-18-18-18-18-18-18-18-18-18-	
	PERMIT					CONTRACTOR					
	REQUIREMENT	The City				T. SHOPPLINE	Proposition and the		See Sec.		Total Control of the
	SAMPLE										
	MEASUREMENT							4			
	PERMIT				a tare	ATT. CALL					
	REQUIREMENT		Section (April 1997)				Part Address States		400 TEA		TWISE STATES
	SAMPLE										
•	MEASUREMENT										
	PERMIT						A CARLO MARKAGE AND A CARL				
	PERMIT REQUIREMENT								1000		
NAME/TITLE PRINCIPAL EXECUTIVE		I CERTIFY UND	R PENALTY OF L	AW THAT	I HAVE PERSONAL	LY EXAMINED			TEL	EPHONE DATE	
					N SUBMITTED HER				ļ		
					MMEDIATELY RESP				İ		
					THE SUBMITTED IN		1				
					AWARE THAT THE						
LANCE IHAK	۸				LSE INFORMATION MENT SEE 18 U.S.C						
Manager, Engineering and					es may include fine		900 SIGNATURE OF PRINCIPAL EXECUTIVE				
TYPE OR PRINTED	name name	,			6 month and 5 years	•	OFFICER OR AUTHORIZED A		CODE	NUMBER YEAR	MO DAY

Wastewater Summary Report for the month of October 2004

					Max			Oil &0	Grease	T	ss	Т	Ъ	Т	·N	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day_	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1	579.4973	1.540481	318.2	14.8	84	6.7	6.8										
2		0.937127	133.3	5.5	84	6.7	6.8										
3		0.892832	223.6	8.6	78	6.7	6.7										
4	596.5150	1.452208	279.5	15.5	82	6.7	6.7										
5	562.1198	1.554855	447.2	16.0	83	6.7	6.9	12.6	162.9	62.7	810.7	13.6	175.9	69.0	892.2	21.3	426.3
6	572.7830	1.603120	537.5	14.7	84	6.7	6.8					12.6	168.0	78.0	1039.9		
7	579.8738	1.546715	481.6	14.6	84	6.7	6.7										
8	578.7893	1.520196	516.0	15.0	82	6.7	6.8										
9		0.614832	111.8	3.8	85	6.7	6.8										
10		0.348958	30.1	1.3	80	6.7	6.7						:				
11	SHUT DOWN	0.249038	68.8	1.8	78	6.7	6.7										
12	SHUT DOWN	0.260403	17.2	1.4	77	6.7	6.7	[
13	SHUT DOWN	0.171441															
14	SHUT DOWN	0.389968	51.6	0.6	77	6.7	6.7										
15	SHUT DOWN	0.291448	55.9	1.9	75	6.7	6.7										
16	SHUT DOWN	0.321668	34.4	2.3	80	6.7	6.7										
17		0.777147	202.1	9.5	78	6.7	6.7		:								
18	612.5515	1.582068	412.8	15.5	83	6.7	7.1										
19	607.1345	1.587948	464.4	16.1	83	6.7	7.2										
20	613.9560	1.514796	352.6	15.3	86	6.7	6.9	10.3	129.7	58.7	739.4	14.1	177.6	74.0	932.2	31.5	
21	601.0283	1.740288	485.9	16.3	85	6.6	7.1					11.7	169.3	79.0	1143.3		
22	599.3550	1.382761	326.8	11.3	86	6.8	6.7										
23		0.631094	124.7	4.3	85	6.7	6.7										
24		0.761971	219.3	9.1	78	6.7	6.7										
25	607.8058	1.506344	378.4	15.1	85	6.7	6.8										
26	607.6443	1.483492	498.8	16.1	82	6.7	6.9	8.2	101.2	78.7	970.9	9.8	120.9	63.0	777.2	24.6	
27	582.6775	1.542908	408.5	15.0	87	6.7	6.8					10.8	138.6	85.0	1090.6		
28	607.6160	1.642363	365.5	14.6	85	6.7	6.8										
29	595.8423	1.428895	348.3	14.2	86	6.7	6.9										
30		0.573209	141.9	4.1	93	6.7	6.8										
31		1.004731	172.0	6.5	80	6.7	6.7										
TOT	9505.1894	32.855305	8208.7	300.8					393.8		2521.0		950.3		5875.4		
AVG	594.0743	1.059849	273.6	10.0	83			10.4	131.3	66.7	840.3	12.1	158.4	74.7	979.2	25.8	426.3

PERMITTEE NAME / ADDRESS (Include

Facility Name/Location if different)

STAR KIST SAMOA, Inc NAME. **ADDRESS** P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

(2-16)AS0000019 PERMIT NUMBER

001 DISCHARGE NUMBER

Form Approved OMB No. 2040-0004 Expires 3-31-88

		MONITORING PERIOD											
FACILITY		YEAR	MO	DAY		YEAR	MO	DAY					
LOCATION	FROM	2004	11	01	то	2004	11	30					
		(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)	NC				

			_		(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Re	ad instructions before completin	g this form.
PARAMETER		(3 Card Only) QUANTI	TY OR LOADING		(4 Card Only) Q	UALITY OR CONCENT	RATION		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)	·	(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY	DAILY		Í	30-DAY	DAILY				
	044515	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE	1 101106	1 660430						0	C	December
	MEASUREMENT	1.191486	1.669439			Department of the second of th	Wyldesonoviernie sosiate * -			Continuous	Recorder
FLOW	PERMIT		20						5.000		
FLOW	REQUIREMENT	general amount of	2.9	mgd	- Carried September 1975 Chief.	A COLUMN TO A COLUMN TO A COLUMN TO A COLUMN TO A COLUMN TO A COLUMN TO A COLUMN TO A COLUMN TO A COLUMN TO A	Accompany of September 1997		Francisco C		
	SAMPLE			İ	442.0	440.0	1420			0	0
	MEASUREMENT		1. 14. 14. 14. 14. 14. 14. 14. 14. 14. 1		442.0	442.0	442.0		0	Once/Month	Composite
BOD5	PERMIT REQUIREMENT		The State of		N/A	N/A	N/A	mg/l			
	SAMPLE	1									
	MEASUREMENT	1092.4	1443.6		59.3	83.2	105.3		0	Once/Week	Composite
	PERMIT		1.0						4600		COLLEGE WAS SE
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l	-475,6		
	SAMPLE										
	MEASUREMENT	290.7	545.8		12.4	22.3	40.8		0	Once/Week	Grab (2)
	PERMIT		47,760,737			7 (7) E			THE		
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l	CHARLES !		0 N
	SAMPLE										
	MEASUREMENT	152.9	182.3		10.7	11.7	13.3		0	One Set/Month (3)	Composite
	PERMIT										
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l		The Tolking of the Tolking of the Common of	
	SAMPLE										
	MEASUREMENT	935.4	1220.1		55.0	71.5	89.0		0	One Set/Month (3)	
	PERMIT								100000		
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l	1222		
	SAMPLE										
	MEASUREMENT				26.0	30.6	36.3		0	Once/Week	Composite
	PERMIT	And the second second	BE TO SE						1.2-full-prijiti -1 -4.022/-80190		
TOTAL AMMONIA	REQUIREMENT				N/A	N/A	133	mg/l	-2800 May		Augustical Company of the Company of
NAME / TITLE PRINCIPAL EXECUTIVE OFF	ICER	•			I HAVE PERSONAL				JEL	EPHONE DATE	
				N SUBMITTED HER							
					IMEDIATELY RESI THE SUBMITTED IN		1				
					AWARE THAT THE						
					LSE INFORMATION						
LANCE IHAKA					IENT SEE 18 U.S.C						
Manager, Engineering and Ma	aintenance	₹ .			s may include fine	•	SIGNATURE OF PRINCIPAL EX		AREA		
TYPE OR PRINTED		and or maximur	n imprisonment o	t between b	month and 5 year	s)	OFFICER OR AUTHORIZED AG	ENT	CODE	NUMBER YEAR	MO DAY

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

Facility Name/Location if different)

NAME STAR KIST

ADDRESS

FACILITY

LOCATION

STAR KIST SAMOA, Inc.

P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

(2-16)
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PERMIT NUMBER

001 DISCHARGE NUMBER

(17-19)

MONITORING PERIOD YEAR МО DAY YEAR МО DAY FROM 2004 11 01 TO 2004 11 30 (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

							(26-27) (28-29) (30-31)		NOTE: Read instructions before completing this form. NO. FREQUENCY SAMPLE				
PARAMETER		(3 Card Only) QUANT	ITY OR LOADING		(4 Card Only) QU	ALITY OR CONCENTRA	ATION		NO.	SAM	IPLE		
(32-37)	;	(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX OF ANALYSIS	ALYSIS	TY	'PE	
		30-DAY	DAILY			30-DAY	DAILY]				
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-	-68)	(69	-70)
	SAMPLE								1				
	MEASUREMENT					86	92		0	Contin	uous	Conti	nuous
	PERMIT	4.45	TES BORS				LANGE BEING		7.53			Partificação	
TEMPERATURE	REQUIREMENT					90	95	° F				resident a	
	SAMPLE							1					
	MEASUREMENT	İ			6.5		7.1		0	Contin	uous	Contin	uous
1	PERMIT	Section 1985								Act Act	24 B - 47		
pН	REQUIREMENT	SERVER.	1000000		6.5	医毛型血管系统	8.6	STD/UNITS		и			
Pii		and part of the second	745000000000000000000000000000000000000		U.J.			3 ID/ONITS	7.6750	7-7-76-3226		1 00 Melics (10.73 cz	(.v.)v((2/44))
	SAMPLE					4400	1100					_	
	MEASUREMENT	Province many of the control of the				<100	<100	4	100-00-00-00	Once/N	/onth	Comp	osite
	PERMIT	140000000000000000000000000000000000000	I DESCRIPTION						* #GF## xxx kil-16			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	100
TOTAL COPPER	REQUIREMENT	43 5.43.67	A STATE OF THE STATE OF		- 14-12-14-14-14-14-14-14-14-14-14-14-14-14-14-	66	108	μg/L	12:5W		Contraction of	100 TO 10	
	SAMPLE											ļ	
İ	MEASUREMENT	İ				319.0	319.0		0	Once/l	Month	Comp	osite
	PERMIT	1.000							建			98-463	
TOTAL ZINC	REQUIREMENT	leteriken i	国主义长益社			1545	1770	μg/L				• • • • • • • • • • • • • • • • • • •	
	SAMPLE												
	MEASUREMENT												
	PERMIT		THE STATE OF STREET		Tereschiot de la la		超性的 医大线性		470000	7 1 1 1 2 4 N N 1	Bis Dale securi	July 10 July 1	stelled v
	REQUIREMENT								1	NEAR			
	SAMPLE								2.162/3.126	- 6-127, JA-209A	0 8 J. Z. (1985)	-656 - 658 B (-55	9847 E-14-12-5
												l	
	MEASUREMENT						Section 19 April 19 April 19 April 19 April 19 April 19 April 19 April 19 April 19 April 19 April 19 April 19	-	10-15-0-55-0-1	on Si	West size (Williams)	1575-2395-1894-1995	20- 4 0-15-1-0-2
	PERMIT					· 1000年	建设工程 图		100				
	REQUIREMENT	14001175	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		8,000			ļ			Water of Cal		
	SAMPLE												
	MEASUREMENT]					
	PERMIT								naci.			一种严重的	
	REQUIREMENT						- 147 其名数 10		2000				
NAME/TITLE PRINCIPAL EXECUTIVE	OFFICER	I CERTIFY UND	ER PENALTY OF L	AW THAT	I HAVE PERSONAL	LY EXAMINED			TEI	EPHONE	DATE		
					N SUBMITTED HER		_						
					MMEDIATELY RESI								
•					THE SUBMITTED II								
		1			AWARE THAT THE								
LANCE IHAK	۸	1	ALTIES FOR SUBM		'								
Manager, Engineering and Ma		1	THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000					VECI PROFE	AREA				
TYPE OR PRINTED	menance				es may include line 6 month and 5 year.		SIGNATURE OF PRINCIPAL E OFFICER OR AUTHORIZED A		CODE	NUMBER	YEAR	мо	DAY
TIFE OR FRINTED		janu or maximul	prisonnient of	~~~~~~	o month and o year.	- /	JOI LIGER ON AUTHORIZED A	OLIT!	LOOPE	NUMBER	ILAR	, MO	DAI

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

The result for Total Copper was reported as <100µg/L because the sample had to be diluted as per our Contract Lab AECOS.

UNTIL SUPPLY IS EXHAUSTED.

2

OF

Wastewater Summary Report for the month of November 2004

					Max			Oil & C	Grease	T	ss	Т	Р	Т	N	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day_	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1	610.5258	1.406286	296.7	14.0	86	6.7	6.9										
2	588.3810	1.450707	344.0	15.5	87	6.7	7.0	20.0	241.3	59.3	715.4	11.4	137.5	78.0	941.0	27.9	
3	612.7988	1.626669	356.9	14.0	88	6.7	6.9					12.2	165.0	56.0	757.5		
4	607.0838	1.669439	374.1	14.6	87	6.7	6.8										i
5	609.9733	1.410376	296.7	14.7	86	6.7	6.8										
6		0.690582	94.6	3.4	83	6.7	6.8										
7		0.851038	240.8	9.8	81	6.7	6.8										
8	605.2205	1.566398	318.2	16.2	85	6.7	6.8										
9	621.6713	1.541516	442.9	16.1	86	6.7	7.1	12.4	159.0	66.0	846.1	11.5	147.4	87.0	1115.3	32.1	442.0
10	613.2793	1.621124	348.3	12.8	87	6.7	6.8					11.6	156.4	65.0	876.3		
11	613.1593	1.664801	404.2	10.8	87	6.7	6.8										
12	605.6630	1.360281	313.9	10.0	90	6.7	6.7	-									
13		0.544226	167.7	5.1	92	6.7	6.7										
14		0.686544	193.5	7.0	81	6.7	6.7										
15	599.2345	1.283616	382.7	12.6	88	6.7	6.7										
16	532.1450	1.544449	365.5	12.9	86	6.7	6.8										
17	614.2910	1.648565	455.8	13.3	88	6.7	6.8	15.8	216.6	105.3	1443.6	13.3	182.3	89.0	1220.1	36.3	
18	606.5595	1.587084	412.8	13.8	86	6.6	6.8					11.3	149.1	55.0	725.9		
19	604.1455	1.485307	425.7	13.1	88	6.7	6.8										
20		0.578550	107.5	3.7	92	6.7	6.7										
21		0.774675	167.7	4.7	82	6.7	6.7										
22	589.9853	1.246785	378.4	11.2	84	6.7	6.9										
23	621.3363	1.608613	455.8	13.4	87	6.7	6.9	40.8	545.8	102.0	1364.5	11.3	151.2	80.0	1070.2	26.0	
24	604.6660	1.507315	382.7	12.5	89	6.7	6.7					10.7	134.1	62.0	777.2		
25		0.524016	120.4	3.0	92	6.7	6.7										
26		0.274225	120.4	2.2	81	6.7	6.7										
27		0.256140	51.6	2.6	83	6.5	6.7										
28		0.614796	223.6	5.1	82	6.7	6.8										
29	598.3435	1.240768	421.4	13.7	85	6.7	6.8										
30	613.2495	1.479675	374.1	11.9	88	6.7	6.8				r						
TOT	12071.7122	35.744566	9038.6	313.7					1162.7		4369.6		1223.0		7483.5		
AVG	603.5856	1.191486	301.3	10.5	86			22.3	290.7	83.2	1092.4	11.7	152.9	71.5	935.4	30.6	442.0

					Max			Oil &C	Grease	TS	ss	Ţ	Р	Т	N	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l_	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1	609.9440	1.444468	425.7	10.8	87	6.7	6.9	6.2	74.5	72.0	864.9	12.6	151.4	83.0	997.0	44.7	
2	599.8235	1.322733	477.3	10.7	87	6.7	6.8					13.0	143.0	79.0	869.0		
3	613.6518	1.337513	382.7	10.3	89	6.7	6.8										
4		0.591517	133.3	2.9	93	6.7	6.7										
5		0.596218	146.2	4.9	83	6.7	6.7										
6	612.1935	1.262055	391.3	10.6	83	6.6	6.7										
7	616.9473	1.388232	490.2	10.4	83	6.7	6.8										
8	625.5140	1.456886	417.1	8.9	84	6.7	6.8	43.8	530.7	258.0	3125.8	13.4	162.3	84.0	1017.7	36.2	417.0
9	611.2063	1.477541	412.8	10.4	85	6.7	6.7					13.4	164.6	73.0	897.0		
10	610.7975	1.358193	391.3	10.0	85	6.7	6.7										
.11		0.513391	129.0	2.5	90	6.7	6.7										
12		0.973080	270.9	5.4	82	6.6	6.7										
13	613.3830	1.303752	356.9	9.8	86	6.7	6.9										
14	609.6345	1.560054	399.9	10.5	85	6.7	6.9										
15	612.2618	1.490690	369.8	10.4	87	6.6	6.8	39.9	494.6	110.7	1372.3	12.4	153.7	69.0	855.4	39.7	
16	615.2848	1.491643	430.0	10.3	84	6.7	6.7					13.6	168.7	61.0	756.7		
17	614.9005	1.307206	348.3	9.0	84	6.7	6.7										
18		0.448052	111.8	2.6	91	6.5	6.7										
19		0.239575	38.7	0.7	80	6.7	6.7										
20	SHUT DOWN	0.210287	60.2	0.8	82	6.7	6.7										
21	SHUT DOWN	0.191178	25.8	0.9	79	6.7	6.7										
22	SHUT DOWN	0.197206	25.8	0.6	80	6.7	6.7										
23	SHUT DOWN	0.176535	8.6	0.6	82	6.5	6.5										
24	SHUT DOWN	0.128539															i
25	SHUT DOWN	0.145792			84	6.7	6.7										
26	SHUT DOWN	0.190603	38.7	2.2	83	6.5	6.7										
27	SHUT DOWN	0.207779	51.6	0.8	86	6.5	6.7										
28	SHUT DOWN	0.296596	34.4	1.5	86	6.6	6.7										
29	SHUT DOWN	0.262262	12.9	0.5	84	6.7	6.8										
30	SHUT DOWN	0.196309	55.9	1.2	80	6.7	6.7										
31	SHUT DOWN	0.276759	47.3	0.9	80	6.7	6.8				1		1				
тот	7965.5425	24.042644	6484.4	161.1					1099.8		5363.0		943.7		5392.8		
AVG	612.7340	0.775569	223.6	5.6	85			30.0	366.6	146.9	1787.7	13.1	157.3	74.8	898.8	40.2	417.0

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

NAME	STAR KIST SAMOA, Inc
ADDRESS	P. O. BOX 368
	PAGO PAGO AMERICAN SAMOA 96799

(2-16)
AS000019
PERMIT NUMBER

001
DISCHARGE NUMBER

FACILITY	YEAR	
LOCATION FROM	2004	
	(00.04)	

EGGATION			_		(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	! NOTE: Re	ead instructions before completi	ng this form.
PARAMETER		(3 Card Only) QUAN	TITY OR LOADING		(4 Card Only) QUA	LITY OR CONCENTRATIO	N .		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY	DAILY	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(0.4.00)	(69-70)
	SAMPLE	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	MEASUREMENT	0.775569	1.560054						0	Continuous	Recorder
	PERMIT	0.773303	1.500054	E C			151 178 P. 1797 P. D. W. C. C.		Winds	White Charles to Valle	
FLOW	REQUIREMENT		2,9	mgd					AND A		America Colores
	SAMPLE										
	MEASUREMENT			ا	417.0	417.0	417.0		0	Once/Month	Composite
	PERMIT						Sir Huarana		5.38000		
BOD5	REQUIREMENT				N/A	N/A	N/A	mg/l		100 100 100 100 100 100 100 100 100 100	
	SAMPLE										
	MEASUREMENT	1787.7	3125.8		72.0	146.9	258.0		0	Once/Week	Composite
	PERMIT								V 1000		
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l			
	SAMPLE								1		
	MEASUREMENT	366.6	530.7	_	6.2	30.0	43.8		0	Once/Week	Grab (2)
	PERMIT	DIDENTAL STATE							45.55		
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l	40-6-8000a		Maria Control
<u>:</u>	SAMPLE										
	MEASUREMENT	157.3	168.7		12.4	13.1	13.6		0	One Set/Month (3)	Composite
	PERMIT			C.							
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A = 2	N/A	N/A:	mg/l			•
	SAMPLE										
	MEASUREMENT	898.8	1017.7		61.0	74.8	84.0		0	One Set/Month (3)	Composite
	PERMIT										
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l	NELSON OF	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	SAMPLE	İ									
	MEASUREMENT	- Committee the committee of the committ	A CONTROL OF THE RESIDENCE OF THE SECOND	in.	36.2	40.2	44.7		0	Once/Week	Composite
	PERMIT								100		
TOTAL AMMONIA	REQUIREMENT				NA 1	N/A	133	mg/l	100 ME 100		A British Control of the Control of
NAME / TITLE PRINCIPAL EXECUTIVE OFF	CER	-			IVE PERSONALLY EX IBMITTED HEREIN AN				TEL	EPHONE DATE	
				DIATELY RESPONSIE		/					
					SUBMITTED INFORM						
		IS TRUE, ACCUR	ATE AND COMPLE	TE. I AM AW	ARE THAT THERE AR	E SIG-	6				
					INFORMATION INCL						
LANCE IHAKA	dointanana				F SEE 18 U.S.C. 1001				4856		
Manager, Engineering and I	viaintenance	-1	enarties under thes imprisonment of b		nay include fines up to onth and 5 years)	\$10,000	SIGNATURE OF PRINCIPAL EX OFFICER OR AUTHORIZED AG		CODE	NUMBER YEAR	MO DAY
TIPE OR PRINTED		Tariu or maximum	mprisonnient of De	CONCELL O 1110	mana o years)		TO THER OR AUTHORIZED AG		LOOPE	HUMDER TEAR	IIIO DAT

TOTAL ZINC

NAME

UNESS (Include in the control of the

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

(17-19)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

SAMPLE TYPE (69-70)

Continuous

Composite

Composite

ADDRESS P. O. BOX 368
PAGO PAGO AMERICAN SAMOA 96799

(2-16)
AS0000019
PERMIT NUMBER

001 DISCHARGE NUMBER

242.0

1770

μg/L

242.0

1545

			-					•			
						MONITORING	PERIOD		1		
FACILITY					YEAR MO	DAY	YEAR MO	DAY]		
LOCATION					2004 12	01 TO	2004 12	31			
				_	(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Rear	d instructions before compl	eting this form.
PARAMETER		(3 Card Only) QUANTITY OF	R LOADING		(4 Card Only) QU	ALITY OR CONCENTRATION	NC		NO.	FREQUENCY	SAN
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	7
						30-DAY	DAILY				
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69
	SAMPLE MEASUREMENT					85	93		0	Continuous	Conti
	PERMIT		AS LINES						- TO THE		
TEMPERATURE	REQUIREMENT		and the second second			90	95	° F			
	SAMPLE										
	MEASUREMENT				6.5		6.9		0	Continuous	Contir
	PERMIT						TO A UNION COMMENTS OF THE PARTY.		3-66-4		村 等50.16 計
рН	REQUIREMENT				6.5		8.6	STD/UNITS	3	Aprilia (Control of Co	
	SAMPLE										-
	MEASUREMENT		·			15.0	15.0		0	Once/Month	Comp
	PERMIT						AWARES - globes			Table of Care	
TOTAL COPPER	REQUIREMENT					66	108	μg/L		T HANGE TO A ST	

	PERMIT REQUIREMENT				
	SAMPLE MEASUREMENT				
	PERMIT REQUIREMENT				
NAME/TITLE PRINCIPAL E	EXECUTIVE OFFICER	AND AM FAMILIAN ON MY INQUIRY O OBTAINING THE II IS TRUE, ACCURA	PENALTY OF LAW THA' R WITH THE INFORMATION OF THOSE INDIVIDUALS NFORMATION. I BELIEVE TE AND COMPLETE. I A TIES FOR SUBMITTING F	ON SUBMITTED HEREI IMMEDIATELY RESPO THE SUBMITTED INF M AWARE THAT THER	N AND BASED NSIBLE FOR ORMATION E ARE SIG-

SIGNATURE OF PRINCIPAL EXECUTIVE AREA
OFFICER OR AUTHORIZED AGENT CODE NUMBER YEAR MO

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

SAMPLE

MEASUREMENT PERMIT

REQUIREMENT
SAMPLE
MEASUREMENT
PERMIT
REQUIREMENT
SAMPLE
MEASUREMENT

LANCE IHAKA

Manager, Engineering and Maintenance

TYPE OR PRINTED

THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND

and or maximum imprisonment of between 6 month and 5 years)

33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000

Once/Month

2

DAY

StarKist Seafood, Inc.

RO Box 368 Page Pago, Tutulia Istond American Samoa 96799

Telephone: 884 644-1935 Facsimile: 884 644-2440

October 03, 2004

Mr. Carl L. Goldstein U. S. EPA Region 9 Pacific Insular Area Program (CMD-5) 75 Hawthorne Street San Francisco, CA 94105

Mr. Peter Peshut, Director, ASEPA Office of the Governor EOB Utulei, American Samoa 96799

Gentlemen:

Re: <u>Discharge Monitoring Report for the Months of July, August and September of 2004, under NPDES No. AS0000019 as issued to Star Kist Samoa, INC.</u>

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of July, August and September of 2004.

Star Kist Samoa met all Effluent limits except for the 30-Day Average pounds per day of Oil and Grease for the month of September 2004.

The Oil and Grease pounds per day exceeded the 30-Day Average limit for the month of September 2004.

Lance Ihaka

Sincerely_

Manager, Engineering and Maintenance

LI \ ls : \ npdes \samoa

Attachments: cc: Mr. Alan Ota

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.

Mr. Phil Thirkell

Wastewater Summary Report for the month of July 2004

					Max			Oil &	Grease	Т	SS	1	Р	Т	N.	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1	611.1235	1.553854	382.7	13.4	8 9	6.7	6.7										
2	572.9593	1.354448	258.0	11.1	89	6.7	6.7								:		
3	ĺ	0.546773	51.6	2.7	87	6.7	6.7										
4		0.212569	8.6	0.5	75	6.7	6.7										
5		0.279890	30.1	1.7	73	6.7	6.8										
6		0.776625	189.2	6.3	75	6.7	6.8										
7	614.6320	1.304374	219.3	13.5	90	6.7	6.7										
8	612.4473	1.610224	292.4	15.8	90	6.7	7.1	42.2	5 65 .1	108.7	1455.6	10.1	135.2	60.0	803.4	13.4	
9	607.2505	1.591921	348.3	15.2	86	6.7	7.0					13.1	173.4	80.0	1059.1		
10	624.0913	1.410063	253.7	10.8	85	6.7	6.8										
11		0.969121	163.4	7.8	87	6.7	6.7										
12	607.9715	1.406242	253.7	13.0	83	6.7	6.7										
13	621.5593	1.666302	365.5	14.5	82	6.7	6.8	67.1	929.8	156.7	2171.4	11.7	162.1	80.0	1108.6	17.2	504.0
14	590.4908	1.646314	331.1	14.9	82	6.7	6.9					12.6	172.5	80.0	1095.3		
15	615.9038	1.565937	313.9	15.2	82	6.7	6.7										
16	608.0350	1.246196	240.8	11.9	88	6.7	6.7			ļ							
17	SHUT DOWN	0.530567	68.8	3.6	8 9	6.7	6.7										
18	SHUT DOWN	0.212839	21.5	1.7	75	6.7	6.7										
19	SHUT DOWN	0.293049	17.2	0.7	74	6.7	6.7										
20	SHUT DOWN	0.239255	12.9	0.8	74	6.7	6.7										
21	SHUT DOWN	0.221925	17.2	0.8	76	6.7	6.7										
22	SHUT DOWN	0.224126	17.2	0.6	75	6.7	6.7										
23	SHUT DOWN	0.317928	21.5	1.5	76	6.7	6.7										
24	SHUT DOWN	0.392375	21.5	2.1	76	6.7	6.7										
25	1	0.747071	47.3	5.8	75	6.7	6.7										
26	605.3468	1.358215	288.1	15.0	90	6.7	6.7										
27	553.2643	1.398416	356.9	15.4	88	6.7	6.7	32.9	382.6	102.7	1194.3	10.5	122.1	70.0	814.0	19.9	
28	597.3913	1.562735	369.8	16.8	88	6.7	6.7					13.1	170.2	80.0	1039.7		
29	591.6293	1.532940	395.6	15.0	90	6.7	6.7										
30	609.0453	1.359091	236.5	8.5	88	6.7	6.7										
31		0.510305	116.1	3.8	88	6.7	6.7										
тот	9643.1413	30.041690	5710.4	260.4					1877.5		4821.3		935.5		5920.1		
AVG	602.6963	0.969087	184.2	8.4	83			47.4	625.8	122.7	1607.1	11.9	155.9	75.0	986.7	16.8	504.0

Facility Name/Location if different)

 NAME
 STAR KIST SAMOA, Inc

 ADDRESS
 P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES	
DISCHARGE MONITORING REPORT (DMI	R

(2-16)
AS0000019
PERMIT NUMBER

001 DISCHARGE NUMBER Form Approved
OMB No. 2040-0004
Expires 3-31-88

FACILITY LOCATION | MONITORING PERIOD | | YEAR | MO | DAY | YEAR | MO | DAY | | PERIOD | | YEAR | MO | DAY | | YEAR | MO | DAY | | YEAR | MO | DAY | | YEAR | MO | DAY | | YEAR | MO | DAY | | YEAR | MO | DAY | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR | YEAR |

PARAMETER		Lu cem Sair. QUANT	ITY OR LOADING		(# Card Only) QUA	LITY OR CONCENTRA	ATION	2. 3	NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY AVERAGE	DAILY	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS	(62-63)	(54-68)	(69-70)
	SAMPLE	AVERAGE	IVIAAIIVIOIVI	UNITS	Militarion	AVERAGE	MAXIMON	014110	(02-03)	(04-00)	(03-70)
	MEASUREMENT	0.969087	1.666302						0	Continuous	Recorder
	PERMIT						SP WOLLDEN BOX			2007	
FLOW	REQUIREMENT		2.9	mgd							
12011	SAMPLE			- ingu		September 200 August 1977 September 200 Sept	TO SECOND CONTRACTOR OF THE SECOND		1995 THE LESS	PROGRAMMA VINGORANS : :- v.	A Manage of the sail of the sa
•	MEASUREMENT				504.0	504.0	504.0		0	Once/Month	Composite
	PERMIT	YA GUNANA MARKATAN Z	and the same						15-01-01		
BOD5	REQUIREMENT				N/A	N/A	N/A	mg/l			
2020	SAMPLE	Children of Children and American	THE DECEMBER OF STREET	6.1	MINISTRAL PROPERTY OF THE PROP	CONTRACTOR CONTRACTOR	: 1457 Bit-benguit 711 *1000/08/		PERMITTERS		7-33-4-1-7
	MEASUREMENT	1607.1	2171.4		102.7	122.7	156.7		1 0	Once/Week	Composite
	PERMIT	a pgiAsiA ing	resideation constitu	2	ijake steelessaajulis et	4. Watte 48574.	SEED BY THE STREET STREET		- ADMIC	OS BENDEY CONTRACTOR	le resident in la la la la la la la la la la la la la
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l			
	SAMPLE	_ myde_pan = - Allpullwag		.,,	Calculations control of the Calculation of the Calc	100	- Na heximic and assistant as a second			MONEY AND THE PROPERTY OF THE	Wallett
	MEASUREMENT	625.8	929.8	İ	32.9	47.4	67.1		0	Once/Week	Grab (2)
	PERMIT	Barris Calabra	16 2 (12 12 12								
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l			
	SAMPLE	This ser don't have been a special or drawn	1000 CONT. 1000 CONT. 1000 CONT. 1000 CONT. 1000 CONT. 1000 CONT. 1000 CONT. 1000 CONT. 1000 CONT. 1000 CONT.		T. P. Syd, South St. St. St. St. St. St.	000000000000000000000000000000000000000				Commence of the Commence of th	
	MEASUREMENT	155.9	173.4		10.1	11.9	13.1		0	One Set/Month (3)	Composite
	PERMIT			TE. 100							
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l		1	Action in the second
	SAMPLE	The state of the s									
	MEASUREMENT	986.7	1108.6		60.0	75.0	80.0		0	One Set/Month (3)	Composite
	PERMIT								6		***
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l	1217	The state of	•
	SAMPLE										
	MEASUREMENT				13.4	16.8	19.9		0	Once/Week	Composite
	PERMIT	30			A Comment						
TOTAL AMMONIA	REQUIREMENT				N/A	N/A	133	mg/l_	1	• •	
NAME / TITLE PRINCIPAL EXECUTIVE OFFI					HAVE PERSONALL				TE	LEPHONE DATE	
					SUBMITTED HERE				1		
<i>h</i> /					MEDIATELY RESPO		SI				
<i>[i]</i>					THE SUBMITTED INF AWARE THAT THEF						
///					LSE INFORMATION						
LANCE IHAKA					ENT SEE 18 U.S.C.						
Manager, Engineering and Ma	intenance				s may include fines		SIGNATURE OF PRINCIPAL EX	ECUTIVE	AREA		
TYPE OR PRINTED		and or maximun	imprisonment o	f between 6	month and 5 years)		OFFICER OR AUTHORIZED AGI	ENT	CODE	NUMBER YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

OF

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

active warner Loc	attorn different/	
AME	STAR KIST SAMOA, Inc	
ADDRESS	P. O. BOX 368	
	PAGO PAGO AMERICAN SAMOA 96799	

AS000019
PERMIT NUMBER

001
DISCHARGE NUMBER

FACILITY:
LOCATION:

| MONITORING PERIOD | | YEAR | MO | DAY | | YEAR | MO | DAY | | 2004 | 07 | 31 |

PARAMETER	1	J Card Only) QUANTI	TY OR LOADING		(+ Card Only) QU	ALITY OR CONCENTRA	ATION	10.75	NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
,						30-DAY	DAILY	T .	1		
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE							1			
	MEASUREMENT					83	90]	0	Continuous	Continuous
	PERMIT		100 mg 100 mg 100 mg 100 mg 100 mg 100 mg 100 mg 100 mg 100 mg 100 mg 100 mg 100 mg 100 mg 100 mg 100 mg 100 mg			THE CHARGE TWO SERVE		İ	153		
TEMPERATURE	REQUIREMENT				Hullasside Ph.	90	95	°F			
	SAMPLE										
	MEASUREMENT				6.7		7.1		0	Continuous	Continuous
	PERMIT	448845* ·			7255 For 1991 No. 12-12	93-1-1785			327		
pH	REQUIREMENT				6.5		8.6	STD/UNITS	34, 11		
	SAMPLE										
	MEASUREMENT					97.0	97.0		0	Once/Month	Composite
	PERMIT	Cacherana - 1935			Berentina inst. Okibe	Real Colors		Ž.	55.4111.	Same was a super-Assault	
TOTAL COPPER	REQUIREMENT				A Philippin at a second of the	66	108	μg/L			" "
	SAMPLE						711				
	MEASUREMENT					308.0	308.0		0	Once/Month	Composite
•	PERMIT					一起在2011年 在					
TOTAL ZINC	REQUIREMENT					1545	1770	μg/L			
	SAMPLE										
	MEASUREMENT							İ			
	PERMIT	= 2000						8			
	REQUIREMENT										
	SAMPLE		and the state of t								
	MEASUREMENT		1								
	PERMIT								and the		
	REQUIREMENT										
	SAMPLE	The second secon	The state of the s			A CONTRACTOR OF THE CONTRACTOR					
	MEASUREMENT										
	PERMIT								1000		
	REQUIREMENT	1									
NAME/TITLE PRINCIPAL EXECUTIVE		I CERTIFY UNDE	R PENALTY OF L	AW THAT	I HAVE PERSONAL	LY EXAMINED			TE	LEPHONE DATE	Secure Company of the
					N SUBMITTED HER					"	
		ON MY INQUIRY	OF THOSE INDIV	IDUALS II	MMEDIATELY RESP	ONSIBLE FOR	n				
		OBTAINING THE INFORMATION. I BELIEVE TH									
//	IS TRUE, ACCURATE AND COMPLETE. I AM NIFICANT PENALTIES FOR SUBMITTING FAI						· //				
LANCE IHAK					ALSE INFORMATION MENT SEE 18 U.S.C.						
Manager, Engineering and M					es may include fine:	300 SIGNATURE OF PRINCIPAL EXECUTIVE					
TYPE OR PRINTED	iannellance				6 month and 5 years		OFFICER OR AUTHORIZED A		CODE	NUMBER YEAR	MO DAY
THE OWNINGED		Tana or maximum	priconnicit or		Tour Line - Journ		1				

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of August 2004

					Max			Oil &0	Grease	T	ss	7	ГР	1	.N	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1		0.812481	133.3	7.5	76	6.7	6.7										
2	596.3140	1.431904	249.4	15.2	86	6.7	6.7										
3	553.0603	1.596104	313.9	14.6	86	6.7	6.7										
4	605.1083	1.596954	387.0	13.8	90	6.7	6.9	16.4	217.8	68.0	903.1	12.4	164.7	60.0	796.8	21.1	424.0
5	594.3448	1.537583	369.8	15.3	86	6.7	6.8					11.6	148.3	70.0	895.1		
6	598.2830	1.421638	331.1	16.3	83	6.7	6.7										
7		0.488431	120.4	3.0	82	6.7	6.8										
8		0.680742	240.8	11.0	76	6.7	6.7									:	
9	577.2483	1.371584	322.5	15.6	86	6.7	6.8										
10	581.5045	1.434863	266.6	16.1	85	6.7	6.7										
11	579.9590	1.352215	279.5	16.3	85	6.6	6.7										
12	562.2100	1.497131	356.9	16.5	85	6.7	6.7	9.3	115.8	388.7	4839.4	13.4	166.8	80.0	996.0	22.1	
13	580.8490	1.344802	223.6	11.1	87	6.6	6.8					16.0	178.9	80.0	894.7		
14		0.588025	43.0	3.7	89	6.7	7.0										
15		0.781590	236.5	10.1	79	6.7	6.7										
16	584.7168	1.291548	313.9	15.2	84	6.7	6.7										
17	604.9678	1.489330	356.9	16.3	86	6.7	6.9]	
18	590.7315	1.619246	352.6	16.5	86	6.7	6.8	39.8	535.9	113.3	1525.7	12.0	161.6	70.0	942.6	35.2	
19	620.5523	1.469171	322.5	15.4	85	6.7	6.7					14.2	173.5	93.0	1 136.2		
20	620.6203	1.476147	279.5	14.1	88	6.7	6.7										
21	SHUT DOWN	0.576966	60.2	2.3	93	6.7	6.7										
22	SHUT DOWN	0.275325			82												
23	SHUT DOWN	0.259455	8.6	0.5	80	6.7	6.7										
24	SHUT DOWN	0.301106	38.7	2.3	80	6.7	6.7										
25	SHUT DOWN	0.159654			80												
26	SHUT DOWN	0.232018	21.5	1.6	80	6.7	6.7										
27	SHUT DOWN	0.346797			78												
28	SHUT DOWN	0.50178	38.7	0.9	79	6.8	6.8										
29	SHUT DOWN	1.000000	167.7	8.9	79	6.7	6.7										
30	596.8343	1.417303	262.3	14.9	85	6.7	7.7										
31	592.9540	1.527960	163.4	16.9	85	6.7	7.1						1		,		
тот	10040.2582	31.879853	6260.8	311.9					869.5		7268.2		993.8		5661.4		
AVG	590.6034	1.028382	223.6	11.1	84			21.8	289.8	190.0	2422.7	13.3	165.6	75.5	943.6	26.1	424.0

Facility Name/Location if different)

FACILITY

LOCATION

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLU	TANT DISCHARGE S	YSTEM (NPDE	ES
DISCHARGE	MONITORING	REPORT	(DMF

(2-16)
AS0000019
PERMIT NUMBER

FROM

001 DISCHARGE NUMBER

 MONITORING PERIOD

 YEAR
 MO
 DAY
 YEAR
 MO
 DAY

 2004
 08
 01
 TO
 2004
 07
 2004

LOCATION			-	TROW	2004 00	124-251	1,8437 (29,29)	.30-51	⊒ NOTE: Rea	ad instructions before completing	g this form.
PARAMETER (32-37) ·	**************************************	(3 Card Only) QUANTIT (46-53)	(54-61)			ALITY OR CONCENTS (46-53) 30-DAY			NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE MEASUREMENT	1.028382	1.619246						0	Continuous	Recorder
FLOW	PERMIT REQUIREMENT		2.9	mgd		WT 2 7 10 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			temple for Fig. 32 Zasty Gunt	The state of the s	A STATE OF THE STA
	SAMPLE MEASUREMENT				424.0	424.0	424.0		0	Once/Month	Composite
BOD5	PERMIT REQUIREMENT	Section 2		10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N/A	N/A	N/A	mg/l	2000	• 1000	
	SAMPLE MEASUREMENT	2422.7	4839.4		68.0	190.0	388.7		0	Once/Week	Composite
TSS	PERMIT: REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l	no parties		a transfer to the second of th
	SAMPLE MEASUREMENT	289.8	535.9	P-50	9.3	21.8	39.8		0	Once/Week	Grab (2)
OIL & GREASE	PERMIT REQUIREMENT	763	1907	ibs/ day	N/A	N/A	N/A	mg/l			
	SAMPLE MEASUREMENT	165.6	178.9		11.6	13.3	16.0		0	One Set/Month (3)	Composite
TOTAL PHOSPHORUS	PERMIT REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l			
	SAMPLE MEASUREMENT	943.8	1136.2		60.0	75.5	93.0		0	One Set/Month (3)	2 2 Colombia de la Co
TOTAL NITROGEN	PERMIT REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l		# 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1	
	SAMPLE MEASUREMENT		and the second second second		21.1	26.1	35.2		0	Once/Week	Composite
TOTAL AMMONIA	PERMIT REQUIREMENT			** **	N/A	N/A	133	mg/l			
AME / TITLE PRINCIPAL EXECUTIVE OFFI	CEB	AND AM FAMILI. ON MY INQUIRY OBTAINING THE IS TRUE, ACCUI	AR WITH THE IN YOF THOSE IND EINFORMATION. RATE AND COMF LLTIES FOR SUBI	FORMATION IVIDUALS IM I BELIEVE T PLETE. I AM MITTING FAI	HAVE PERSONALL I SUBMITTED HERE IMEDIATELY RESPO 'HE SUBMITTED INI AWARE THAT THEI LSE INFORMATION ENT SEE 18 U.S.C.	IN AND BASED ONSIBLE FOR FORMATION RE ARE SIG- INCLUDING			TEL	EPHONE DATE	
Manager, Engineering and Ma	intenance				s may include fines month and 5 years)	•	SIGNATURE OF PRINCIPAL EXI OFFICER OR AUTHORIZED AGI		AREA CODE	NUMBER YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Form Approved

OMB No. 2040-0004

Expires 3-31-88

Facility Name/Location if different)

NAME

ADDRESS

STAR KIST SAMOA, Inc.

P. O. BOX 368 PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

AS0000019 PERMIT NUMBER

(17-19) 001 DISCHARGE NUMBER

MO

08

DAY

31

Form Approved OMB No. 2040-0004 Expires 3-31-88

MONITORING PERIOD YEAR MO DAY YEAR FACILITY **FROM** 08 01 TO 2004 LOCATION

PARAMETER		(3 Card Only) QUANT	ITY OR LOADING		(20-21) (22-23) (4 Card Only) QU	ALITY OR CONCENTR.	(20-27) (28-29) ATION	,av-31)	NO.	FREQUENCY	SAMPLE
(32-37)		(3 Card Only) QUAN1	(54-61)		(4 Card Only) Qu.	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
(02-07)		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE MEASUREMENT					84	93		0	Continuous	Continuous
TEMPERATURE	PERMIT					90	95	°F		The second secon	
	SAMPLE MEASUREMENT				6.6		7.7		0	Continuous	Continuous
pH	PERMIT REQUIREMENT				6.5		8.6	STD/UNITS		A CONTRACTOR OF THE PARTY OF TH	Address total
	SAMPLE MEASUREMENT					13.0	13.0		0	Once/Month	Composite
TOTAL COPPER	PERMIT REQUIREMENT				AND THE STATE OF T	66	108	μg/L		The state of the s	de apois ST
	SAMPLE MEASUREMENT					343.0	343.0		0	Once/Month	Composite
TOTAL ZINC	PERMIT					1545	1770	μg/L			
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	ert i									
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
ME/TITLE PRINCIPAL EXECUTIVE		AND AM FAMIL ON MY INQUIR OBTAINING THI IS TRUE, ACCU NIFICANT PENA	IAR WITH THE INFO Y OF THOSE INDIV E INFORMATION. I RATE AND COMPL ALTIES FOR SUBM	ORMATIO IDUALS II BELIEVE LETE. I AN ITTING FA	I HAVE PERSONAL N SUBMITTED HERI MMEDIATELY RESP THE SUBMITTED IN I AWARE THAT THE ALSE INFORMATION MENT SEE 18 U.S.C.	EIN AND BASED PONSIBLE FOR IFORMATION ERE ARE SIG- I INCLUDING	D /		TEL	EPHONE DATE	
anager, Engineering and Mai		33 U.S.C. 1319 (Penalties under the	ese statut	es may include fines 6 month and 5 years	s up to \$10,000	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			NUMBER YEAR	MO DA

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

OF

2

Wastewater Summary Report for the month of September 2004

					Max			Oil &0	Grease	Т	SS	7	TP		TN .	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day_	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1	587.6228	1.577857	292.4	15.6	85	6.7	6.8	119.8	15 72.0	232.7	3053.4	14.5	196.3	99.0	1299.0	18.1	
2	602.2803	1.670781	296.7	17.5	85	6.6	6.7					11.1	154.2	73.0	1014.3		
3	599.2913	1.467894	270.9	14.8	91	6.7	6.7										
4		0.633494	150.5	5.9	91	6.7	6.8										
5		0.275176			81												
6		0.340958	38.7	3.2	78	6.7	6.7										
7		0.843169	245.1	8.9	78	6.7	6.8										
8	571.1690	1.626298	236.5	17.3	82	6.7	6.9	81.1	1096.8	204.7	2768.4	9.8	132.5	60.0	811.5	10.1	488.0
9	579.5015	1.479865	262.3	16.8	82	6.7	6.9					12.5	153.8	67.0	824.5		
10	560.9105	1.641002	240.8	16.9	84	6.7	6.8										
11	544.9493	1.467290	215.0	16.5	82	6.7	6.8										
12		1.006759	180.6	9.8	83	6.7	6.8										
13	606.5595	1.384200	245.1	13.7	82	6.7	6.8										
14	600.3350	1.659999	236.5	16.4	82	6.7	6.8										
15	606.4075	1.638557	215.0	17.5	83	6.7	7.0	26.2	357.0	104.0	1417.1	15.9	216.7	84.0	1144.6	25.0	
16	582.1003	1.594370	202.1	16.8	82	6.7	6.8					14.8	196.2	91.0	1206.5		
17	588.7270	1.376902	150.5	13.9	84	6.7	6.8									1	
18		0.544162	30.1	2.5	85	6.7	6.7										
19		0.600565	103.2	3.9	80	6.7	6.7]	
20	578.4765	1.504283	219.3	11.7	81	6.7	6.7										
21	579.9463	1.645982	391.3	13.9	85	6.7	6.8										
22	580.3713	1.673211	382.7	16.9	85	6.6	7.0	54.8	762.5	144.7	2013.4	15.6	217.1	90.0	1252.3	26.3	
23	568.7023	1.902564	503.1	16.7	86	6.5	6.9					12.0	189.9	74.0	1170.8		
24	575.3823	1.662392	404.2	13.2	85	6.7	6.9										
25		0.592360	154.8	4.8	90	6.7	6.8										
26		0.989270	236.5	8.4	81	6.7	6.7										
27	597.9725	1.621537	292.4	15.8	84	6.7	6.9										
28	568.7575	1.673842	202.1	15.4	84	6.7	6.9										
29	579.1615	1.583264	421.4	17.1	83	6.7	6.8	32.5	427.9	66.7	878.2	10.3	135.6	83.0	1092.8	23.7	
30	580.7723	1.711195	412.8	16.3	83	6.7	7.0					12.8	182.1	90.0	1280.7		
тот	12239.3965	39.389198	7232.6	378.1					4216.2		10130.5		1768.4		11097.0		
AVG	582.8284	1.312973	249.4	13.0	84			62.9	843.2	150.6	2026.1	12.9	176.8	81.1	1109.7	20.6	488

Facility Name/Location if different)

NAME

FACILITY

LOCATION

STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368 -

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019 PERMIT NUMBER

001 DISCHARGE NUMBER

(17-19)

MONITORING PERIOD YEAR MO DAY YEAR MO DAY 30 09 01 2004 09 FROM 2004 TO (24.25) /3/0-31:

LOCATION			-	1 KOW	(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31:	→ NOTE: Re:	ad instructions before con	pleting this form.
PARAMETER	T	(3 Card Only) QUAN	TITY OR LOADING	-		UALITY OR CONCENTRATIO		(100	NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY	DAILY			11/501.05		UNITS		(54.50)	(50.70)
	CAMPLE	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE MEASUREMENT	1.312973	1.902564							Continuous	Recorder
	PERMIT	V- 12951-27		1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		- 500th - 2,0000		-35.0jg	ASSESSMENT AND APPLICATION	
FLOW	REQUIREMENT		2.9	mgd							
	SAMPLE										
	MEASUREMENT					488	488.0		0	Once/Month	Composite
	PERMIT										
BOD5	REQUIREMENT			12 15		A N/A	N/A	mg/l	Sisteman,	Commission of the second	
	SAMPLE		00504		00.7	450.0	000.7				
	MEASUREMENT	2026.1	3053.4	8	66.7	150.6	232.7		0	Once/Week	Composite
TSS	PERMIT	2996	7536	lbs/day	AL F. L. INV	A N/A	N/A	mg/l	- CATTA 944		
135	REQUIREMENT SAMPLE	Z990	7530	ibs/day	Carle Const. September 1 N/	The same of the sa	NAME OF TAXABLE PARTY.	High	OF THE SUCCESSION		TELL (1.86 6.89 6.70 17 18 18 18 18 18 18 18 18 18 18 18 18 18
	MEASUREMENT	843.2	1572.0		26.2	62 .9	119.8		1	Once/Week	Grab (2)
	PERMIT	043.2	1372.0		20.2	02.0	110.0				(2)
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/	A N/A	N/A	mg/l			
And the second s	SAMPLE										
	MEASUREMENT	176.8	217.1		9.8	12.9	15.9		0	One Set/Month (3) Composite
	PERMIT			5			1000				
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	: N/	A N/A	N/A	mg/l	200	u u	
	SAMPLE										
	MEASUREMENT	1109.7	1299.0		60.0	81.1	99.0		0	One Set/Month (3) Composite
	PERMIT	447									
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/	A N/A	N/A	mg/i	Sealer		
	SAMPLE				10.4	20.0	00.0			0	0
	MEASUREMENT		10:00	188 188	10.1	20.6	26.3		0	Once/Week	Composite
TOTAL AMMONIA	PERMIT	沙战量之后	15 3 75 6 75		l N/	A N/A	133	mg/l			
	REQUIREMENT	I CEPTIEV LINDER	P PENALTY OF LAW	V THAT I HA	VE PERSONALLY E		193	ing/i	TE	EPHONE DATE	
VAME / TITLE PRINCIPAL EXECUTIVE OFFI	/ TITLE PRINCIPAL EXECUTIVE OFFICER		R WITH THE INFOR		1 ./			ET HORE	T I		
	13/	ON MY INQUIRY	OF THOSE INDIVID	UALS IMME	DIATELY RESPONS	SIBLE FOR	V		1		
/	W	1			SUBMITTED INFOR				1		
		, ,			ARE THAT THERE A INFORMATION INC						
LANCE IHAKA					SEE 18 U.S.C. 100		//				
Manager, Engineering and Manager	Maintenance				ay include fines up		SIGNATURE OF PRINCIPAL EXECUTIVE AREA				
TYPE OR PRINTED		and or maximum	imprisonment of b	etween 6 mo	nth and 5 years)		OFFICER OR AUTHORIZED AGI	ENT	CODE	NUMBER YEAR	MO D

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Form Approved

OMB No. 2040-0004

Expires 3-31-88

FACILITY

LOCATION

Facility Name/Location if different) NAME

STAR KIST SAMOA, Inc.

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

(2-16)AS0000019 PERMIT NUMBER

(17-19)001 DISCHARGE NUMBER

Form Approved OMB No. 2040-0004 Expires 3-31-88

MONITORING PERIOD YEAR MO DAY YEAR MO DAY 09 2004 09 FROM 2004 01 TO 30

					[20-24] (22-22)	(21-25)	(26-27) (28-29)	:50-311	NOTE: Ro	ad instructions before comple	ting this form.
PARAMETER		(3 Card Only) QUANTITY OF	RLOADING		(4 Card Only) QU	ALITY OR CONCENTRATION	N		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
						30-DAY	DAILY	1			
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE					84	91		0	Continuous	Cantianana
	MEASUREMENT	Transfer to the State of the North Control of the State o			4.00.0000000000000000000000000000000000	04		4	1	Commuous	Continuous
	PERMIT	Photos Contracted to	agyrtar fri falk gyr						Supre (ES)		
TEMPERATURE	REQUIREMENT	pring the fill	100 A 100 A			90	95	°F	770as (4)		
	SAMPLE								1		
	MEASUREMENT				6.5		7.0		0	Continuous	Continuous
	PERMIT						DE MANAGEMENT		230,03		
pH	REQUIREMENT				6.5		8.6	STD/UNITS	25.7		
	SAMPLE		She Wat William								- St. Mandeldan, A. C. Andrews
	MEASUREMENT					11.0	11.0		1 0	Once/Month	Composite
	PERMIT	abrachi project 600 deceste	erentali - 74476		The Control of State			1	Salaka T	Oncertional	Mark a system as but and a
TOTAL CORRER	44.24 E. E. E. E. E. E. E. E. E. E. E. E. E.						400		19/5/14/5		The property of the control of the c
TOTAL COPPER	REQUIREMENT	VARIATIVE Z. Z. X. L.			A STANDARD WHEN	66	108	μg/L	Applications .		
	SAMPLE							ĺ	_		
	MEASUREMENT					257.0	257.0		0	Once/Month	Composite
	PERMIT					- 144 - 144 A			基等家		
TOTAL ZINC	REQUIREMENT					1545	1770	μg/L			
	SAMPLE										
	MEASUREMENT								ļ		<u> </u>
	PERMIT										
	REQUIREMENT										
	SAMPLE						A STATE OF THE STA	1	EISOPHINEVY I	9744 HA 11 A 11 A 11 A 11 A 11 A 11 A 11 A	
	1								İ		
	MEASUREMENT							-	eren Kassberg (ARC)	Self-control of the All Control	
	PERMIT								55E		
	REQUIREMENT					armen a			i seri		ALCOHOL CONTRACT
	SAMPLE										
	MEASUREMENT										
	PERMIT /										
	REQUIREMENT								اسرا		
NAME/TITLE PRINCIPAL EXECUTIVE	Val-200005	I CERTIFY UNDER	PENALTY OF LAW	THAT I HA	VE PERSONALLY EX	AMINED			TEL	EPHONE DATE	The second secon
	. /	1			JBMITTED HEREIN AN			1/			
	r/	ON MY INQUIRY O	OF THOSE INDIVIDU	JALS IMME	DIATELY RESPONSIE	BLE FOR		<i>}/</i>			
	<i>W</i>	l			SUBMITTED INFORM						
	1				ARE THAT THERE AR						
LANCE IHAKA	Ý	I			INFORMATION INCL						
Manager, Engineering and Mai		I			T SEE 18 U.S.C. 1001 / nay include fines up to	OLONATURE OF PROCESS	VEGITINE.	ADEA			
TYPE OR PRINTED	nenance	•	manues under these mprisonment of bet			SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		CODE	NUMBER YEAR	MO DAY	
TIPE OR PRINTED		and of maximum n	inprisonment of bet	moen o me	man unu o years)		OFFICER OR AUTHORIZED AC	JEIT1	CODE	NUMBER TEAR	I MO L DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

The Oil and Grease pounds per day exceeded the 30- Day Average limit for the month of September 2004.

2

OF

StarKist Seafood, Inc.

P. J. has 358 Il carlinago, Tatelia Isiand Premiana, Sasson 36768

7-4mb-rec 834-734-1306 1-27-7-600-6-6-7-8-74-1306

July 17, 2003

Mr. Carl L. Goldstein U. S. EPA Region 9 Pacific Insular Area Program (CMD-5) 75 Hawthorne Street San Francisco, CA 94105

Mr. Togipa Tausaga, Director, ASEPA Office of the Governor EOB Utulei, American Samoa 96799

Gentlemen:

Re: <u>Discharge Monitoring Report for the Months of April, May and June of 2003, under NPDES No. AS0000019 as issued to Star Kist Samoa, INC.</u>

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of April, May and June of 2003.

Star Kist Samoa met all Effluent limits.

Sincerely

Lance Ihaka

Manager, Engineering and Maintenance

LI \ ls : \ npdes \samoa

Attachments:

cc: Mr. Peter Peshut

Mr. Alan Ota

Mr. Steven L. Erickson

Mr. Phil Thirkell

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

Facility	Name/Location	if	different)

FACILITY

LOCATION

NAME STAR KIST SAMOA, Inc
ADDRESS P. O. BOX 368

P. O. BOX 368
PAGO PAGO AMERICAN SAMOA 96799

(2-16) AS000019 PERMIT NUMBER 001
DISCHARGE NUMBER

MONITORING PERIOD YEAR МО DAY YEAR MO DAY 2003 04 01 2003 04 30 FROM TO (22-23) (24-25) (28-29) (30-31) (26-27) (20-21)

OCATION			_	FROM	(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	J NOTE: Read	d instructions before completing	this form.
PARAMETER (32-37)		(46-53)	(54-61)		(4 Card Only) QUA (38-45)	(46-53)	(54-61)	I .	NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE MEASUREMENT	1.198355	1.929765						0	Continuous	Recorder
FLOW	PERMIT REQUIREMENT		2.9	mgd		The second secon					
	SAMPLE MEASUREMENT				521.7	521.7	521.7		0	Once/Month	Composite
BOD5	PERMIT REQUIREMENT				N/A	N/A	N/A	mg/l			
	SAMPLE MEASUREMENT	776.5	1110.9		34.0	56.8	84.7		0	Once/Week	Composite
TSS	PERMIT REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l	15.005 V.	And the second s	
	SAMPLE MEASUREMENT	371.0	493.2		11.3	27.1	36.7		0	Once/Week	Grab (2)
OIL & GREASE	PERMIT REQUIREMENT	763	1907	lbs/ day	N/A	NA	The second secon	mg/l			
	SAMPLE MEASUREMENT	167.1	219.9		8.3	11.8	13.7		0	One Set/Month (3)	Composite
TOTAL PHOSPHORUS	PERMIT REQUIREMENT	192	309	 lbs/day	N/A	N/A	N/A	mg/l		And the second s	hange for the second
	SAMPLE MEASUREMENT	1045.4	1283.8		60.0	73.8	80.0		0	One Set/Month (3)	Composite
TOTAL NITROGEN	PERMIT REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l			Control No. 1 Contro
	SAMPLE MEASUREMENT				26.0	29.1	33.8		0	Once/Week	Composite
TOTAL AMMONIA	PERMIT REQUIREMENT	The second secon			N/A	N/A	133	mg/l		**************************************	
ME / TITLE PRINCIPAL EXECUTIVE OFFI LANCE IHAKA	13/20/20 20 20 20 20 20 20 20 20 20 20 20 20 2	AND AM FAMILI ON MY INQUIRY OBTAINING THE IS TRUE, ACCUI NIFICANT PENA	AR WITH THE IN Y OF THOSE IND E INFORMATION RATE AND COM LLTIES FOR SUB	IFORMATION IVIDUALS IM . I BELIEVE T PLETE. I AM MITTING FAI	HAVE PERSONALL I SUBMITTED HERE IMEDIATELY RESPONENTED INFO AWARE THAT THER LSE INFORMATION ENT SEE 18 U.S.C.	IN AND BASED DNSIBLE FOR FORMATION RE ARE SIG- INCLUDING	#		TEL	EPHONE DATE	
Manager, Engineering and Maintenance 33 U.S.C. 1319 (Penalties under these state and or maximum imprisonment of between					s may include fines		SIGNATURE OF PRINCIPAL EXE OFFICER OR AUTHORIZED AGE		AREA CODE	NUMBER YEAR	MO D

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

 NAME
 STAR KIST SAMOA, Inc

 ADDRESS
 P. O. BOX 368

 PAGO PAGO AMERICAN SAMOA 96799

AS000019 PERMIT NUMBER 001 DISCHARGE NUMBER

MO

04

DAY

30

MONITORING PERIOD YFAR MO DAY YEAR FACILITY: FROM 2003 04 01 TO 2003 LOCATION: (24-25)(26-27) (20-21)(22-23)

(30-31) (28-29)NOTE: Read instructions before completing this form. (3 Card Only) QUANTITY OR LOADING PARAMETER (4 Card Only) QUALITY OR CONCENTRATION FREQUENCY SAMPLE OF ANALYSIS (54-61) ΕX TYPE (32-37) (46-53)(54-61)(38-45) /46-531 30-DAY DAILY AVERAGE MAXIMUM UNITS MINIMUM AVERAGE MAXIMUM UNITS (62-63) (64-68) (69-70) SAMPLE 85 93 0 Continuous Continuous MEASUREMENT PERMIT ۰F 90 95 TEMPERATURE REQUIREMENT SAMPLE 6.7 7.2 0 Continuous Continuous MEASUREMENT PERMIT 6.5 8.6 рH REQUIREMENT SAMPLE <10 <10 0 Once/Month Composite MEASUREMENT PERMIT **TOTAL COPPER** 66 108 µg/L REQUIREMENT SAMPLE 123.0 123.0 0 MEASUREMENT Once/Month Composite PERMIT **TOTAL ZINC** 1545 1770 µq/L REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED NAME/TITLE PRINCIPAL EXECUTIVE OFFICER TELEPHONE DATE AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIG-NIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING LANCE IHAKA THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 (Penalties under these statutes may include fines up to \$10,000 Manager, Engineering and Maintenance SIGNATURE OF PRINCIPAL EXECUTIVE AREA TYPE OR PRINTED and or maximum imprisonment of between 6 month and 5 years) OFFICER OR AUTHORIZED AGENT CODE NUMBER YEAR MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of April 2003

					Max			Oil &Grease		Т	SS	-	ГР		TN	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l_	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff_mg/l	mg/l
1	636.1955	1.754030	485.9	12.9	83	6.7	6.9	28.0	408.4	53.3	777.5	13.1	191.1	80.0	1166.9	26.0	
2	644.5288	1.929765	520.3	15.4	87	6.7	6.9					13.7	219.9	80.0	1283.8		
3	663.4555	1.560172	460.1	11.4	92	6.7	6.8										
4	649.9023	1.854014	421.4	12.7	89	6.7	6.7										
5	613.8568	1.381849	210.7	6.2	84	6.7	6.7										
6		1.065522	219.3	6.3	83	6.7	6.7										
7	589.7883	1.281308	455.8	12.0	87	6.7	6.8										
8	587.9028	1.616014	468.7	11.8	88	6.7	7.2	36.7	493.2	55.3	743.2	11.8	158.6	60.0	806.3	33.8	521.7
9	623.5903	1.720562	438.6	12.8	84	6.7	6.9					11.8	168.8	80.0	1144.7		
10	622.7220	1.699305	395.6	11.6	87	6.7	6.9										
11	611.3678	1.521577	313.9	10.3	86	6.7	6.8										
12	SHUT DOWN	.647901	146.2	3.9	84	6.7	6.8										
13	SHUT DOWN	.355815	12.9	1.4	81	6.7	6.8										
14	SHUT DOWN	.351198	34.4	0.9	81	6.7	6.7										
15	SHUT DOWN	.340296	51.6	1.8	81	6.7	6.8										
16	SHUT DOWN	.346823	73.1	1.5	93	6.7	6.7										
17	SHUT DOWN	.273562	30.1	1.1	84	6.7	6.7										
18	SHUT DOWN	.271151	47.3	1.5	82	6.7	6.7										
19	SHUT DOWN	.407795	64.5	2.2	81	6.7	6.7										
20	SHUT DOWN	.803701	150.5	5.7	88	6.7	6.7										
21	510.7678	1.302561	348.3	11.3	86	6.7	6.9										
22	458.0850	1.468343	382.7	13.0	90	6.7	6.8										
23	628.7905	1.577116	438.6	13.9	93	6.7	6.8	32.4	424.9	84.7	1110.9	11.3	148.2	70.0	918.1	30.2	
24	623.3923	1.545242	395.6	13.2	82	6.7	6.8					12.1	155.5	80.0	1028.0		
25	664.2800	1.602640	352.6	10.7	86	6.7	6.8										
26	629.0218	1.325749	288.1	9.1	83	6.7	6.7										
27		1.069028	219.3	7.9	83	6.7	6.8										
28	636.7748	1.429092	270.9	11.3	82	6.7	6.7										
29	628.9000	1.677415	494.5	12.4	84	6.7	7.0	11.3	157.6	34.0	474.3	∙8.3	115.8	60.0	837.0	26.3	
30	577.8000	1.771109	468.7	13.5	82	6.7	6.8					12.0	178.7	80.0	1178.3		
тот	11601.1223	35.950655	8660.2	259.7					1484.1		3105.9		1336.6		8363.1		
AVG	610.5854	1.198355	288.7	8.7	85			27.1	371.0	56.8	776.5	11.8	167.1	73.8	1045.4	29.1	521.7

FACILITY

LOCATION

Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc.

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

(2-16)

AS0000019

PERMIT NUMBER

001
DISCHARGE NUMBER

MONITORING PERIOD YEAR MO DAY YEAR МО DAY FROM 2003 05 01 TO 2003 05 31 /20.241 /22.221 (24.26) (26-27) (28 20) (30-31) NOTE: Read instructions before completing this form

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Re	ad instructions before completin	g this form.
PARAMETER		(3 Card Only) QUANTIT	Y OR LOADING		(4 Card Only) QU	ALITY OR CONCENTRA	TION		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY	DAILY			30-DAY	DAILY		1		
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE	4.040000	4 000444							• "	
	MEASUREMENT	1.312000	1.686441	-	Esternio Company	-812-96-9 -96-86-8 FF-9-1			0	Continuous	Recorder
A.L.	PERMIT			cir E							
FLOW	REQUIREMENT		2.9	mgd	Construction Construction		See the second second second		120 X-11-520		Alberta
	SAMPLE			1							
	MEASUREMENT			_	357.0	357.0	357.0		0	Once/Month	Composite
	PERMIT										
BOD5	REQUIREMENT	and the second s	Secret Addition		N/A	N/A	N/A	mg/l	TOUR DESCRIPTION		
	SAMPLE		1	1							
	MEASUREMENT	920.6	2313.0		20.0	70.4	166.0]	0	Once/Week	Composite
	PERMIT	india some classical	# The state of	0, 10			AND LONG T				LONE FET
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l			
	SAMPLE										
	MEASUREMENT	397.9	889.0		10.9	30.8	63.8	<u> </u>	0	Once/Week	Grab (2)
	PERMIT]	404 Th. 1-	#1457 PER 1 - 25 10 F	
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l	V. 67.75		
	SAMPLE										
	MEASUREMENT	150.4	190.9		7.4	11.3	13.9		1 0	One Set/Month (3)	Composite
	PERMIT								A THE SAME		4218°07''
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l			Ans. T
	SAMPLE								- TOWN OF THE REAL PROPERTY OF THE PERTY OF		
	MEASUREMENT	978.8	1234.0	1	50.0	73.8	90.0		0	One Set/Month (3)	
	PERMIT			- Ŝ				1	5420000		
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l		SOUTH THE STATE OF	
	SAMPLE		AND A STATE OF THE PARTY OF THE	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	5-7-00-00-000-00-00-00-00-00-00-00-00-00-	7-4	CARLOS SEMESTRATE ELECTRICAL FOR			STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD STANDARD ST	The state of the s
	MEASUREMENT				9.0	22.7	34.4		1 0	Once/Week	Composite
	PERMIT	The state of the s	F. Sarahaniya	⇔		pulling the second second					AND THE PARTY OF T
TOTAL AMMONIA	REQUIREMENT				N/A	N/A	133	mg/l	September 200		- 3 - 3 - 3
AME / TITLE PRINCIPAL EXECUTIVE OFFI	Vilidada (3 - 1 · · · · · · · · · · · · · · · · · ·	I CERTIFY UNDE	R PENALTY OF	LAW THAT	HAVE PERSONALL	**************************************		19/1	TE	LEPHONE DATE	788888 1777 - ENGLAST (\$250 VED \$25
LANCE IHAKA		ON MY INQUIRY OBTAINING THE IS TRUE, ACCUP NIFICANT PENA THE POSSIBILIT	OF THOSE IND INFORMATION. RATE AND COMF LTIES FOR SUBI Y OF FINE AND	IVIDUALS IN I BELIEVE T PLETE. I AM MITTING FAI IMPRISONM	N SUBMITTED HERE MMEDIATELY RESPO ITHE SUBMITTED INF AWARE THAT THEF LSE INFORMATION I IENT SEE 18 U.S.C. 1	ONSIBLE FOR FORMATION RE ARE SIG- INCLUDING 1001 AND	A				
Manager, Engineering and Ma	aintenance	⊣ `			s may include fines		SIGNATURE OF PRINCIPAL EXE	ECUTIVE	AREA		
TYPE OR PRINTED		and or maximum	imprisonment o	of between 6	month and 5 years)		OFFICER OR AUTHORIZED AGE	NT	CODE	NUMBER YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Form Approved

OMB No. 2040-0004

Expires 3-31-88

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

NAME	STAR KIST SAMOA, Inc	
ADDRESS	P. O. BOX 368	
	PAGO PAGO AMERICAN SAMOA 96799	

(2-16) AS0000019 PERMIT NUMBER 001
DISCHARGE NUMBER

FACILITY

LOCATION FROM

MONITORING PERIOD YEAR MO DAY YEAR MO DAY 2003 05 2003 05 01 TO 31 (24-25) (20-21) NOTE: Pead instructions before completing this form

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Rea	d instructions before complet	
PARAMETER		(3 Card Only) QUANT	ITY OR LOADING		1	JALITY OR CONCENTRA	TION		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY	DAILY		1	30-DAY	DAILY		1 1		
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE										1
	MEASUREMENT		1727			84	89		0	Continuous	Continuous
	PERMIT								ELECT.		
TEMPERATURE	REQUIREMENT		Star Mark Production		The second secon	90	95	°F	200		
	SAMPLE										
	MEASUREMENT				6.5		7.6		0	Continuous	Continuous
	PERMIT							1	1-22-28		243 7 23 7 7
На	REQUIREMENT				6.5		8.6		5.65.65.00		
	SAMPLE	111111111111111111111111111111111111111	25 - 2-26/2/2-88/2/2-98/2-18		V-45 1920, 5-15, 100000	D 1-04-1-1-1, 1, 2, 2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2			304239357741	38. 5 V 38. 1 12. 0. 2) 12. 0. 3 13. 0. 3	7/6 - 1-96/7-9-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
	MEASUREMENT					<50	<50		1 0	Once/Month	Composite
	PERMIT	14686				A 4	100000000000000000000000000000000000000		3504985401	alisa da ATE ATEMANIA	Composite
TOTAL COPPER	REQUIREMENT					66	108	μg/L			
TOTAL COFFER	SAMPLE	ASSESSED DESCRIPTION	. I. a real Description of the control of the contr		- Weight Sharps Co			µg/L	18.00 9.84		R. Arr County-New York - 1 - 1986
						2000	200.0				l
	MEASUREMENT	CONTROL OF VILLAGE	- TRAINS (10 - 10 - 17 - 40)			320.0	320.0	-	0	Once/Month	Composite
	PERMIT								in the second		
TOTAL ZINC	REQUIREMENT		Service Control of th		Verderen den men	1545	1770	µg/L	120		
	SAMPLE		İ								
	MEASUREMENT										
			LE CHARLES								
	REQUIREMENT					missible P			A STATE OF THE OWNER OWNER OW		
	SAMPLE										
	MEASUREMENT	1			İ						
	PERMIT				7 - 250 - 2010 TOS PRODUCTION				200000000000000000000000000000000000000		
	REQUIREMENT										and the second
	SAMPLE					V			#50560000000000000000000000000000000000	The street of action 1, C. C. C.	The state of the s
	MEASUREMENT	-				-					
	PERMIT	Mindragor (1988)					AND THE RESERVE OF TH		3554554		
	REQUIREMENT										
NAME/TITLE PRINCIPAL EXECUTIVE		I CERTIFY UND	R PENALTY OF L	AW THAT	I HAVE PERSONAL	LY FXAMINED	-CT-65, NEWSCHIEDERS, -2-1111	L	TELE	PHONE DATE	A THE PARTY OF THE
VANIE ITEE ITATION AL EXCOUTE	OTTIOEIX				N SUBMITTED HER			1 12	1	- DATE	
					MMEDIATELY RESE						
		OBTAINING THE	INFORMATION. I	BELIEVE	THE SUBMITTED IN	FORMATION					
					I AWARE THAT THE		R				1
					LSE INFORMATION		0/				
LANCE IHAK		1			MENT SEE 18 U.S.C						
Manager, Engineering and Maintenance 33 U.S.C. 1319 (Penalties under these statutes may in and or maximum imprisonment of between 6 month a							SIGNATURE OF PRINCIPAL EXE		AREA		
TYPE OR PRINTED		and or maximum	n imprisonment of	<u>between</u>	month and 5 years	9	OFFICER OR AUTHORIZED AGE	ENT	CODE	NUMBER YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

2

Wastewater Summary Report for the month of May 2003

					Max	-		Oil &	Grease	T	SS	7	Р	7	N .	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1	600.1070	1.562416	361.2	11.1	83	6.7	6.8										
2	573.8560	1.388057	344.0	10.9	88	6.7	6.7										
3		0.673573	90.3	2.8	82	6.7	6.7										
4		0.948305	202.1	6.2	82	6.7	6.7										
5	584.2155	1.358473	283.8	11.1	89	6.7	6.7										
6	573.1225	1.656584	451.5	13.7	83	6.7	6.8										
7	575.9550	1.515639	387.0	12.4	85	6.7	6.9	10.9	137.4	28.7	361.7	11.3	142.4	70.0	882.3	27.1	357.0
8	562.1665	1.643202	335.4	13.4	85	6.7	6.9					12.0	164.0	70.0	956.5		
9	594.0685	1.406280	253.7	9.8	86	6.7	6.8										
10		0.845948	206.4	7.2	84	6.7	6.8										
11		1.002728	150.5	6.8	84	6.7	6.8										
12	598.5500	1.478678	236.5	10.4	86	6.7	6.7										
13	529.9443	1.500890	425.7	12.1	86	6.7	6.7										
14	585.8075	1.675539	365.5	13.9	86	6.7	6.9	63.8	889.0	166.0	2313.0	13.7	190.9	80.0	1114.7	34.4	
15	608.2198	1.648776	378.4	12.6	88	6.7	6.8					13.9	190.6	90.0	1234.0		
16	621.3243	1.489762	313.9	11.0	86	6.7	6.8										
17		0.735210	94.6	3.5	83	6.7	6.7										
18		0.892320	240.8	6.7	83	6.7	6.7										
19	426.7695	1.250219	210.7	7.9	82	6.7	6.7										
20		0.841490	219.3	7.4	83	6.7	6.7										
21	418.3940	1.324250	434.3	12.6	83	6.7	7.6	36.8	405.3	66.7	734.5	7.4	81.5	50.0	550.6	9.0	
22	629.8660	1.544150	425.7	14.1	83	6.7	6.8					12.2	156.7	80.0	1027.3		
23	608.4648	1.484989	344.0	11.8	83	6.8	6.7										
24	617.8488	1.493268	438.6	10.3	83	6.5	6.8										
25		0.573792	111.8	3.8	83	6.7	6.8										
26		0.868801	202.1	4.9	83	6.7	6.7									!	
27	626.8065	1.476809	399.9	10.9	84	6.7	6.9										
28	637.1155	1.628749	374.1	12.8	86	6.7	6.9	11.8	159.8	20.0	270.9	9.5	128.7	80.0	1083.6	20.2	
29	594.2898	1.686441	378.4	12.2	82	6.7	6.9					10.6	148.7	70.0	981.7		
30	549.1818	1.641150	455.8	14.3	84	6.7	6.8										
31	558.9640	1.436192	322.5	10.4	83	6.7	6.7										
тот	12675.0376	40.672680	9438.5	309.0					1591.5		3680.1		1203.5		7830.7		
AVG	576.1381	1.312000	304.5	10.0	84			30.8	397.9	70.4	920.6	11.3	150.4	73.8	978.8	22.7	357.0

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

Facility Name/Location if different)								
NAME	STAR KIST SAMOA, Inc							
ADDRESS	P. O. BOX 368							
	PAGO PAGO AMERICAN SAMOA 96799							

(2-16)AS0000019 PERMIT NUMBER

(17-19)001 DISCHARGE NUMBER

FACILITY LOCATION FROM

MONITORING PERIOD YEAR MO DAY YEAR MO DAY 2003 06 01 2003 06 30 TO

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Re	ad instructions befo	re completing	this form.	
PARAMETER		(3 Card Only) QUAN	TITY OR LOADING		(4 Card Only) QUA	LITY OR CONCENTRATION			NO.	FREQUEN	ICY		PLE
(32-37)		(46-53)	(54-61)	· · · · · · · · · · · · · · · · · · ·	(38-45)	(46-53)	(54-61)		EX	OF ANALY	'SIS	TY	PE
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)		(69)	-70)
	SAMPLE	AVERAGE	MIPARIMONI	- Oilli O	I I I I I I I I I I I I I I I I I I I	AVEIGAGE		Oiti10	(02-03)	(07-00)			10)
	MEASUREMENT	1.269839	1.671159						0	Continuo	us	Recor	der
	PERMIT	William Company of the Company		ģ.							*******		
FLOW	REQUIREMENT	Grand Park	2.9	mgd			100 040 040 040 040 040 040 040 040 040						
	SAMPLE												
	MEASUREMENT				452.0	452.0	452.0		0	Once/Mor	nth	Comp	osite
	PERMIT			20					72	44 1 1 1			
BOD5	REQUIREMENT			Ř	N/A	N/A	N/A	mg/l		41-1-1			
	SAMPLE												
	MEASUREMENT	632.9	883.1		33.3	48.8	70.0		0	Once/We	ek	Comp	osite
	PERMIT	PAPER LA COMP											
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l	21451	Andrews a Second			
	SAMPLE		_										
	MEASUREMENT	146.0	255.5		7.1	11.1	18.6		0	Once/We	ek	Grab	(2)
	PERMIT				A STATE OF THE PARTY OF THE PAR		A Marganistic (Table)		TOTAL TERMINA				
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l			reservation for the state	250	•
	SAMPLE												
	MEASUREMENT	152.8	169.9	23	10.2	11.7	13.5		0	One Set/Mo	nth (3)	Comp	osite
TOTAL BUILDEDUIGNUE	PERMIT	200	200	1		.,,,		0	10000000				
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l	********				
	SAMPLE	1045.0	4043 E		50.0	80.0	90.0			00-4	-45 (0)	0	
	MEASUREMENT	1045.9	1243.5	9		00.0	90.0		0	One Set/Mo	ntn (3)	Comp	osite
TOTAL NITROGEN	PERMIT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l			•		
TOTAL NITROGEN	SAMPLE	1200	Z I QURVE	ibsiday	IVA	l WA		- mg/i	- Anglija#002488	(1971年) (1971年) (1971年) (1971年)	NORWAY NEWS		PERSONA.
	MEASUREMENT				19.0	25.7	29.8		1 0	Once/We	ok	Comp	neita
	PERMIT		ger of the form of the same		10.0		20.0		Edwin's	Olicertte		1.50 Salates	Mercet Line
TOTAL AMMONIA	REQUIREMENT				N/A	N/A	133	mg/l	2000 C		•		
NAME / TITLE PRINCIPAL EXECUTIVE OFFI	ACCUPATION OF THE PROPERTY OF	I CERTIFY UNDER	R PENALTY OF LAV	V THAT I HA	VE PERSONALLY EXA	This was a company of the control of	A Association of the Control of the	1119/1	TE	LEPHONE	DATE		
		-			BMITTED HEREIN AN			11					
					DIATELY RESPONSIB			/					
		[.			SUBMITTED INFORM.								
					ARE THAT THERE AR INFORMATION INCLU		1						
LANCE IHAKA		1			SEE 18 U.S.C. 1001 A		11						
Manager, Engineering and I	Maintenance				ay include fines up to		SIGNATURE OF PRINCIPAL EXE	CUTIVE	AREA			***	
TYPE OR PRINTED		and or maximum	imprisonment of be	etween 6 mo	nth and 5 years)		OFFICER OR AUTHORIZED AGE	NT	CODE	NUMBER	YEAR	мо	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

NAME

ADDRESS

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved DMB No. 2040-0004 Expires 3-31-88

STAR KIST SAMOA, Inc
P. O. BOX 368
PAGO PAGO AMERICAN SAMOA 96799

(2-16)
AS0000019
PERMIT NUMBER

(17-19) 001 DISCHARGE NUMBER

FACILITY LOCATION

 MONITORING PERIOD

 YEAR
 MO
 DAY
 YEAR
 MO
 DAY

 2003
 06
 01
 TO
 2003
 06
 30

	··· . · · · · · · · · · · · · · · · · ·				(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: Rea	d instructions before completing	ig this form.
PARAMETER		(3 Card Only) QUANTITY OF	RLOADING		(4 Card Only) QUA	ALITY OR CONCENTRATION	Ī		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
						30-DAY	DAILY				
	0111015	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE MEASUREMENT					83	88		0	C	0
	The state of the s	antiquine of a mode division	TOUTANT ARE CHARLES		and a second of the second	OJ	00	-	0	Continuous	Continuous
	PERMIT		5 - 448 7 5 5 5 5 5 5 5 5 5 5 5 5 5 5				erarangsasangsagrawa Managsasasangs		FUT (3 %), 14.		
TEMPERATURE	REQUIREMENT		water of the second		and the second second	90	95		17,55980		And the second s
-	SAMPLE										
	MEASUREMENT		ļ		6.6		7.0		0	Continuous	Continuous
	PERMIT					DA Silving a special of the	approximation in the second				down file Leader
pН	REQUIREMENT		foliation devices		6.5		8.6		we with	3 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	
	SAMPLE	1.4-4-7.4s/3./**s-3c.3-xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	ACCESSAGES 19-225-244-1-25-29-3-2-1-2-2		1 150 April 1000 - 1 100 100 100 100 100 100 100 10	1.05×4.126×4.200.170464544444444.	n 1.79%-0-0/xan-1. → • A 1.11	 	12:55:25:25		
			[<10	<10	ļ	1 0	Once/Month	0
	MEASUREMENT	a a Difference in the action	and the Afficial Property of		FAREST GREEN AT SELECTION	<u> </u>	~10 - () wijis, (4 ,) siyada(8)		LANCE CONTEST	Once/Month	Composite
	PERMIT				78.10						
TOTAL COPPER	REQUIREMENT	4	W			66	108	μg/L	54m 1258	R. W. T. Spiriter	
	SAMPLE										
	MEASUREMENT					139	139		0	Once/Month	Composite
	PERMIT	See a see by	July 4 August		de projekt eligibete se di Grandelik ili de sekolik		144a 45		Bar Kings (2)		
TOTAL ZINC	REQUIREMENT					1545	1770	μg/L		A	
	SAMPLE	P. 10 10 10 10 10 10 10 10 10 10 10 10 10							2449 (0022 5)		
	MEASUREMENT										
	PERMIT		grandle (25 - 12 millione village)		Control Sales on Spr	ECCEPTAL OF SECTION	at the late of the second		of Grands over	337 7714 E V - 1946 44	
						美国电影机器					
	REQUIREMENT	A STATE OF THE STA	Texts series of the series		38.75 Elt. 36.794	P#H 46 400 B - H 460E			P. Richards		
	SAMPLE		į								
	MEASUREMENT										
	PERMIT	19 Factor							160		
	REQUIREMENT					guida de la reconstante de la constante de la			de di salah Gelah		
	SAMPLE										
	MEASUREMENT				1						
	PERMIT	il who a sit is				TO PERSON TO SE	Total Control of Street		paraty and deposits	station being berinner ster of the	SMORTER PROPERTY.
	REQUIREMENT	April 1991 September 1991					Application of the second of the				
NAME/TITLE PRINCIPAL EXECUTIVE		I CEDTIEV LINDED	DENVITA UE I VM.	THATIHA	VE PERSONALLY EX	AMINED		,	TEL	EPHONE DATE	A Contention of the Contention
NAME/TILE PRINCIPAL EXECUTIVE	OFFICER				JBMITTED HEREIN AN		//	1	TEL	EPHONE DATE	
					DIATELY RESPONSIE		//	•			
					SUBMITTED INFORM		/ //-	•		Ì	
		IS TRUE, ACCURA	TE AND COMPLETE	. I AM AW	ARE THAT THERE AR	E SIG-					
		NIFICANT PENALT	IES FOR SUBMITTI	NG FALSE	INFORMATION INCLU	JDING	///			1	
LANCE IHAK					T SEE 18 U.S.C. 1001 A		<i>y y</i>		1		
Manager, Engineering and Mai	ntenance	-			nay include fines up to	\$10,000	SIGNATURE OF PRINCIPAL EXE		AREA		
TYPE OR PRINTED		and or maximum in	mprisonment of bet	ween 6 mc	onth and 5 years)		OFFICER OR AUTHORIZED AGE	NT	CODE	NUMBER YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Wastewater Summary Report for the month of June 2003

					Max			Oil &C	Grease	T	ss	1	ГР		ΓN	Total	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/day	mg/l	#/day	mg/l	#/day	mg/l	#/day	Eff mg/l	mg/l
1		1.093903	202.1	7.1	83	6.7	6.7										
2	575.6973	1.373168	365.5	10.5	85	6.7	6.7										
3	579.1683	1.512998	485.9	14.2	83	6.7	6.9	11.2	140.9	38.7	486.9	13.5	169.9	80.0	1006.6	26.2	
4	580.3448	1.548809	520.3	13.3	82	6.7	6.9					11.4	146.8	50.0	644.0		
5	580.5463	1.580037	438.6	12.3	83	6.7	6.9										
6	575.9458	1.619585	408.5	11.0	84	6.7	6.9										
7		0.743627	159.1	3.8	83	6.7	6.7										
8		0.796185	163.4	6.1	82	6.7	6.7										
9	579.2903	1.393859	374.1	10.0	88	6.7	6.8										
10	570.9178	1.651592	447.2	13.2	83	6.7	7.0	18.6	255.5	53.3	732.1	10.7	147.0	90.0	1236.1	19.0	452.0
11	593.5493	1.661426	477.3	10.9	83	6.7	6.9					10.2	140.9	90.0	1243.5		
12	593.2328	1.671159	245.1	9.6	84	6.7	6.7										
13	577.1143	1.417804	184.9	8.8	81	6.7	6.7										
14		0.634296	64.5	2.6	81	6.7	6.7										
15		0.655617	94.6	4.2	82	6.7	6.7										
16	582.8348	1.378728	129.0	7.9	83	6.7	6.8										
17	595.9913	1.550890	399.9	12.6	83	6.7	7.0	7.1	91.6	33.3	429.5	12.3	158.6	80.0	1031.8	29.8	
18	604.4883	1.636021	288.1	12.6	82	6.6	6.8					11.7	159.2	80.0	1088.4		
19	599.2760	1.472691	111.8	8.6	82	6.7	6.8										
20	582.4045	1.354873	116.1	8.0	82	6.7	6.7										
21		0.591041	34.4	1.4	83	6.7	6.7										
22		0.709305	103.2	3.8	82	6.7	6.8										
23	603.0393	1.451251	210.7	9.2	82	6.7	6.8										
24	582.1440	1.517017	399.9	13.0	82	6.7	6.9	7.6	95.9	70.0	883.1	12.2	153.9	90.0	1135.4	27.9	
25	619.3910	1.475447	498.8	11.3	82	6.7	6.9					11.9	146.0	80.0	981.6		
26	603.1708	1.460217	292.4	8.6	83	6.7	6.7										
27	599.6185	1.294792	167.7	6.6	82	• 6.7	6.7										
28		0.598131	81.7	1.8	81	6.7	6.7										
29		0.751278	86.0	4.0	81	6.7	6.7										
30	592.1955	1.499434	326.8	9.9	83	6.7	6.7										
TOT	12370.3610	38.095181	7877.6	256.9					583.9		2531.6		1222.3		8367.4		
AVG	589.0648	1.269839	262.6	8.6	83			11.1	146.0	48.8	632.9	11.7	152.8	80.0	1045.9	25.7	452.0

TO! PETER

StarKist Samoa, Inc.

December 3, 2001

Mr. Carl L. Goldstein
US EPA Region 9
Pacific Insular Area Program {CMD-5}
75 Hawthome Street
San Francisco, CA 04105

RE: Temporary Arrangement to Eliminate Ocean Dumping

Dear Mr. Goldstein:

StarKist Samoa has been requested to provide Blue North with a three week period during which the F/V Tasman Sea will be cleaned and repaired. The F/V Tasman Sea is the vessel used to haul and dispose high strength wastewater and DAF sludge pursuant to StarKist's Ocean Dumping Permit.

Due to required production levels StarKist can accommodate a maximum two weeks' downtime. In addition, two weeks' downtime is the longest period allowed under the agreement between StarKist and Blue North. However, due to the critical need to have a serviceable vessel to satisfy the requirements of the Ocean Dumping Permit, StarKist feels it necessary to accommodate Blue North's request.

Therefore, StarKist requests permission to process high-strength wastewater streams through the plant's wastewater treatment system, mixed with the regular process wastewater, for a period of one week. This will eliminate the need for ocean dumping services for that week. The modified process to be used is described below. Timeframe is as follows:

StarKist production downtime: 22-Dec-2001 through 05-Jan-2002

Modified wastewater process: 06-Jan-2002 through 12-Jan-2002

Modified Process

StarKist currently produces approximately 1,000,000 gallons per day of process wastewater and 100,000 gallons per day of high-strength wastewater. The high-strength wastewater is normally collected separately and disposed under the requirements of StarKist's Ocean Dumping Permit, along with sludge produced by the DAF (dissolved air flotation) unit in the wastewater treatment system.

The high-strength wastewater consists of pre-cooker water and fish meal press liquor. Pre-cooker water is a combination of condensed steam from cooking the fish and city water sprayed on the cooked fish to cool them. Press liquor is the liquid waste produced by pressing cooked tuna scrap, prior to sending the scraps to the fish meal drier.

Under the modified process, both high-strength streams will be processed through the wastewater treatment system. The high-strength streams will be combined with the normal process wastewater at the dock sump, allowing adequate mixing time before entering the wastewater treatment system.

From the dock sump, the wastewater is pumped to rotary screens where coarse solids are removed. These coarse solids are processed along with the tuna scrap into fish meal. Following the screens, wastewater is pumped into a surge tank, and then to a pressure tank. In the pressure tank chemicals and compressed air are injected into the wastewater to aid the DAF process. The wastewater then enters the DAF following a series of expansion valves.

In the DAF, the previously injected chemicals pull the solids together to form a floc and compressed air in the water expands to create bubbles that float the floc to the top of the DAF. Scraper arms on the DAF surface collect the floc and skim it into a sludge tank. Clean water flows from the DAF to a flume where temperature and pH are monitored and pH adjusted as needed. Finally, the treated effluent flows to the discharge pipeline. The DAF sludge will be de-watered, combined with tuna scrap and processed into fish meal.

During the week where the modified process is used, GRAS (generally recognized as safe) approved polymers will be used: a polyamine (PWC720) and a cationic emulsion (PWC731). The polymers will be obtained from Pacific Water Consultants.

This modified process is the same used during a two week test period in July 2001. We propose to follow the same effluent monitoring scheme described in your May 10, 2001 letter approving the test. Results of the testing showed that all discharge parameters can be met with the exception of nitrogen and phosphorus.

Condition of F/V Tasman Sea

Some people have expressed concern about the condition of the F/V Tasman Sea and its ability to fulfill the requirements of the Ocean Dumping Permit. Although we believe the vessel can be repaired sufficiently to meet its obligations through the end of the current contract (June 2002), we have requested Blue North develop a back-up plan.

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Thank you for your consideration of this request, and we look forward to hearing from you soon. Please contact me should you have any questions or require additional information.

Sincerely,

STARKIST SAMOA, INC.

PHIL THIRKELL General Manager

/tl

cc: Peter Peshut, ASEPAS John Brown, H. J. Heinz TRANSMISSION OK

TX/RX NO.

8334

CONNECTION TEL

90116846442290

CONNECTION ID

START TIME

12/21 10:15

USAGE TIME

01'32

PAGES

2

RESULT

OK

TRANSMISSION OK

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CONNECTION ID

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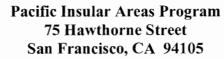
PAGES

2

RESULT

OK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX



December 21, 2001

Phil Thirkell General Manager StarKist Samoa, Inc. PO Box 368 Pago Pago, AS 96799

RE: NPDES Permit AS002001- Effluent Modification Testing

Dear Mr. Thirkell:

I write in response to your letter, dated December 13, 2001, requesting a time period of January 6, 2002 through January 19, 2002 to allow the discharge of your wastewater whose composition has been changed to include 100,000 gallons of high strength waste. The basis of your request is that The F/V Tasman Sea must undergo ship repair, and that the disposal of high strength waste at the designated ocean dumping site is not possible while the ship is undergoing repairs.

Your request, as described in your letter, is approved, and I hope the F/V Tasman Sea will be seaworthy by January 19, 2002. However, please be advised that if the F/V Tasman Sea is unable to resume duties after January 19, 2002, StarKist will need to implement their, or Blue North's, backup plan for disposal of your high strength waste, at that time. The backup plan must be in conformance with USEPA and ASEPA law and regulations.

The following sampling and monitoring of effluent wastewater will be conducted by StarKist during the period of January 6 - 19, 2002.

Effluent Parameter	Frequency
TSS	2 times daily
Oil & Grease	2 times daily
Total Nitrogen	2 times daily
Total Phosphorus	2 times daily
Ammonia	2 times daily
BOD (5-day)	1 time daily
Copper	2 times/week
Zinc	2 times/week
Flow, pH, Temp	continuously

Please advise us of your actual start and stop dates, and a copy of the results of your sampling and monitoring program.

If you have any questions, please let me know (goldstein.carl@epa.gov; fax: 415-947-3560; ph: 415-972-3767).

Carl L. Goldstein

American Samoa Program Manager Pacific Insular Area Programs

cc: ASEPA



December 14, 2001

Carl Goldstein
American Samoa Program Manager
U.S. Environmental Protection Agency, Region IX
CMD - 5
75 Hawthorne Street
San Francisco, CA 94105

Dear Mr. Goldstein:

COS Samoa Packing Company is advised by Blue North Fisheries (operator of the joint-cannery ocean dumping vessel) that four weeks are required to complete repairs to the vessel *Tasman Sea*. Dry-dock is scheduled to commence on Dec. 22, 2001. The vessel will return to service no later than Jan. 19, 2002. Our cannery has scheduled a shutdown for the period Dec. 22 - Jan. 05. The period from Jan. 06 - Jan. 19 are scheduled production weeks for COS, in anticipation of a USDA packing contract.

We request permission to operate during the period of Jan. 06 - Jan. 19. After discussions with Starkist Samoa Inc.'s engineering staff, and Peter Peshut, ASEPA Technical Services Manager, we ask permission to partially duplicate the modified wastewater treatment procedure used by Starkist for their waste pilot study. The pilot study was completed in July of this year. Their procedure processed high-strength waste through the DAF and recovered the sludge for processing through the meal plant. Using their procedure we can continue cannery operations during the two additional weeks required for boat repairs. This will allow us to meet our contract obligations.

We propose to duplicate the Starkist modified wastewater process, with one exception. COS will store DAF sludge rather than process it through the meal plant. COS does not have an oil recovery decanter and centrifuge operation, and therefore, our high-strength waste is not efficient for meal production. We propose to store DAF sludge in our onshore high-strength waste storage tank. Tank capacity is 180,000 gals. Starkist provided us with documentation that shows they produced 4500 - 8000 gal. of sludge per day during the July trial period (see attached). At this production rate there is ample sludge storage capacity for the proposed modified operations period. COS processes approximately 100 fewer tons of fish per day than Starkist, so there appears to be a substantial margin of safety for sludge storage.

To further reduce sludge production, COS will process 100 tons per day of loin fish, and 210 tons per day of round fish, for the week of Jan. 06 - Jan. 12. We will process 420 tons of round fish per day for the week of Jan. 13 - Jan. 19.

As we will not process our sludge through the meal plant, this eliminates the need for GRAS polymers. We propose to maintain our usual 2-polymer treatment regime, at increased dosage rates.

Our water treatment consultant, Mr. Bob Cunningham of Chemisis Inc. ran jar tests on the modified process and made recommendations for polymer dosage rates. Jar test results are attached.

Wastewater flow diagrams are attached to show piping and valve changes that are required for the modified wastewater process. Piping modifications are minor, and will be completed by Jan 06, 2002.

Enhanced effluent monitoring will be performed during the two-week period. The effluent will be monitored according to the testing regime used by Starkist during their July modified process period. See testing regime attached.

Our high-strength waste tank will be cleaned on Dec. 15 & 16, per our tank cleaning action plan. We will use the *Tasman* to empty the tank by Dec. 22, the start of our shutdown period. The *Tasman* will then have time to clean its tanks before dry-dock.

We recognize that we must hold high-strength waste for a period of two weeks. To manage the sludge, we will add 10,000 gals. of water to the tank before fish processing begins. Live steam injection will be maintained throughout each week of production. Continuous live steam injection will sterilize the sludge and eliminate odor-producing bacteria. Condensate from the steam will help maintain sludge fluidity. Shortly before the *Tasman* is available for service, the tank will be topped off with water and heated to approximately 190° F before pumping to the boat.

Thank you for considering our proposal. Should your decision be favorable, we are committed to responsible and reliable operation of the modified wastewater treatment process during the two-week period.

Yours truly.

Brett Ransby

Plant Engineering Manager

Cc: File/E7000

Herman Gebauer, COS Samoa Packing Company,

Jim Cox, COSINTL.

Peter Peshut, ASEPA

StarKist Samoa, Inc.



A Division of Star-Kist Foods, Inc.

P.O. Box 368
Pago Pago, Tutula Island
American Samoa 96799

Telephone: 684 644-4231 Facsimile: 684 644-2440

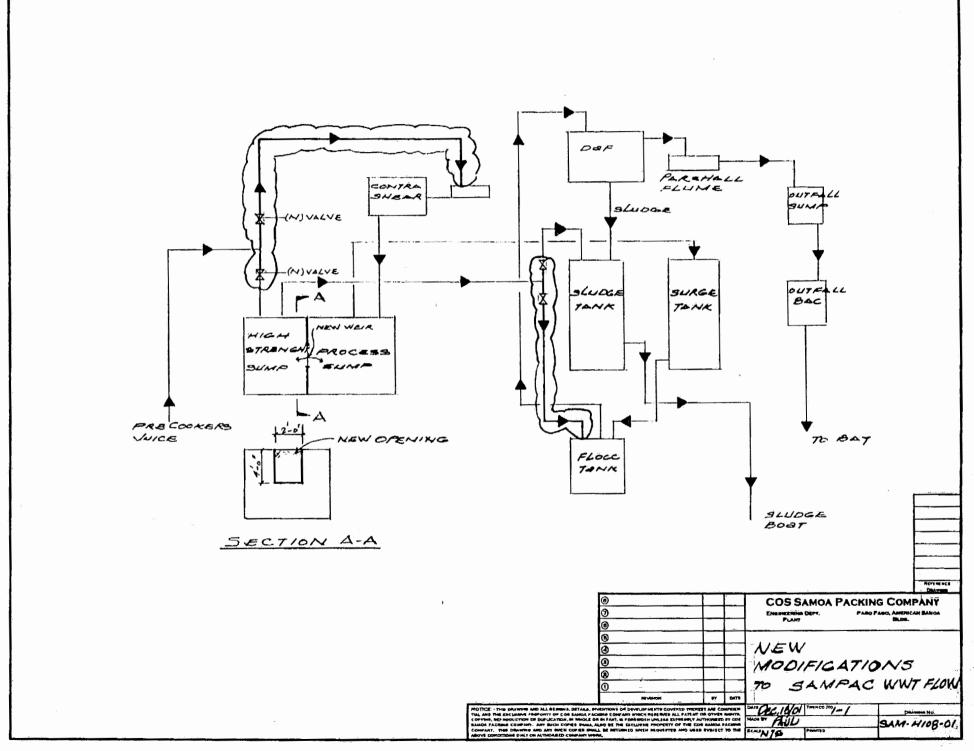
December 7 - 01

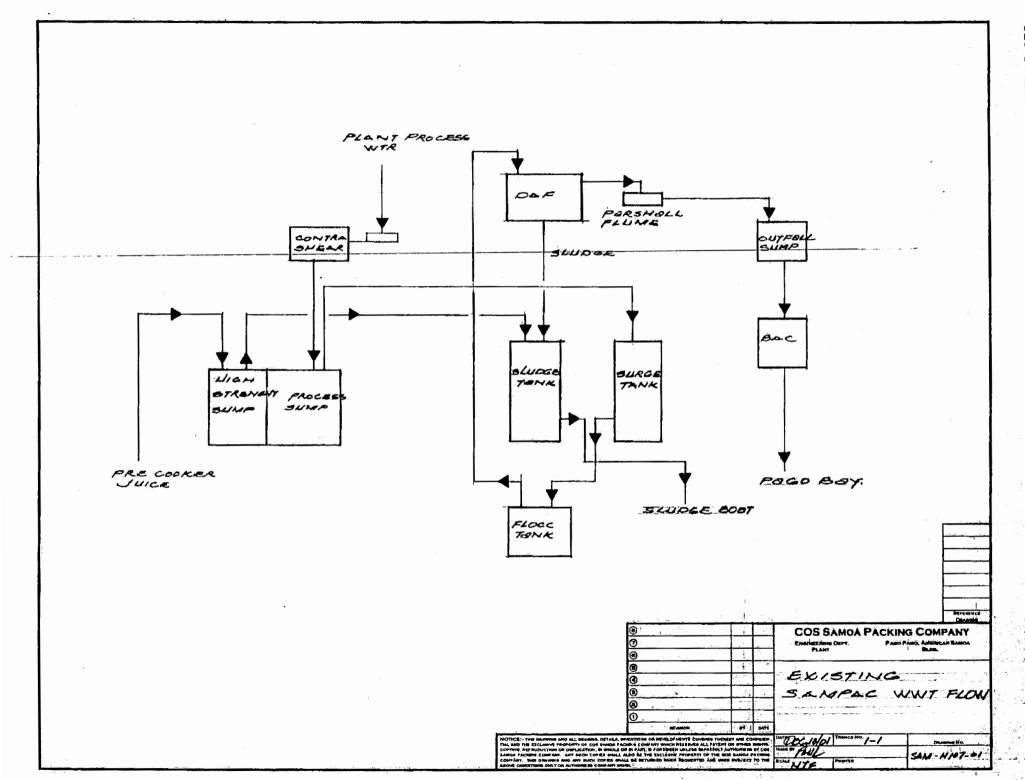
Mr. Brett Ransby C.O.S.

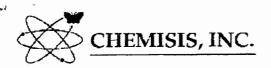
This letter is to confirm our conversation on 12-6-01. During the wastewater treatment pilot test combining normal DAF flow with precooker water and press liqueur conducted in July. The DAF sludge produced using the new chemicals along with running a thicker sludge blanket on the DAF averaged 6,000 gallons per day with a high of 8,000 gallons and a low of 4,500 gallons.

Joe Carney

Utilities Dept. Head StarKist Samoa







FAX MEMO:

DATE:

December 12, 2001

TO:

COSI, Samoa packing Co.

Mr Brett Ransby, Mgr. Of Engineering ATTN:

FROM:

Bob Cunningham

PAGES:

2, including this cover page.

SUBJECT:

Waste Water Studies - DAF Bench Scale Simulation 12/07/01

Dear Mr. Ransby;

During my recent visit to Samoa we met with your local EPA representative and the engineering management personnel from Starkist, Samoa. The purpose of this meeting was to determine how best to operate the cannery waste water systems during the brief but necessary sludge boat outage at the end of the upcoming Holiday shutdown. The objective is to optimize effluent quality in order to minimize contamination of the sludge mixing zone during this period when high strength waste water will be present in the outfall. Our expectation has been that while we can do a good job of solids and O&G removal, we will not be able to meet permit conditions with respect to soluble TKN, and phosphorous.

You previously operated your waste water system in Samoa for several years using your existing chemical treatment and control program without segregating your high strength wastes. At that time you were able to meet current daily and monthly average outfall parameter limits with respect to TSS & Oil & Grease. This remained true until your TKN & Total Phosphorous limits were reduced in your effluent in order to reduce nutrient loading on your reef. We were unable to find a practical physical/chemical/biological treatment method that would provide adequate removal of this soluble phosphorous and nitrogen without providing additional downstream unit processes that were impractical given your space and cost constraints.

At that time your discharge permit was modified to allow disposal of the high

• Page 2 December 13, 2001

strength waste water along with the DAF sludge, via the sludge boat, at an offshore mixing zone that was able to absorb the additional nutrient loading.

You also have had additional identical experience at your Terminal Island, CA plant, where high strength waste was not segregated, and the final outfall was discharged to an L.A. Sanitary Authority interceptor. Again, TSS and O&G were easily removed through the DAF using chemical coagulants. The same treatment program has been employed until the plant recently closed.

After our previously mentioned meeting on Wed., Dec. 5th, you decided to have me conduct some bench scale simulations on your waste water, using the anticipated mixture of high strength waste water and your current polymer program. I completed the balance of my work in the plant with your boilers and cooling systems on Wednesday afternoon and Thursday while a composite sample was collected, and ran the jar tests on Friday morning.

The synthesized waste water treated consisted of a mixture of one part of high strength waste water combined with nine parts of regular DAF influent. We collected a composite sample of your normal DAF influent using your normal composite sample procedure, beginning on Wednesday night at midnight. This waste was mixed with an appropriate amount of high strength waste. The sample was treated with your normal two polymer treatment program using the upper end of the rate that is normally employed.

The following results were achieved:

Treatment Dosage			Results				
#8356	#8356	TSS	<u>0&G</u>	<u>TKN</u>	<u>NH3</u>	<u>TP</u>	
30mg/l	7.5 mg/l	102	36.2	305.9	72	11.4	

The liquid phase of the final treated sample exhibited very slight coloration and haze, with almost no pinpoint floc.

These results confirm what we have repeatedly observed in the past. We are able to remove large amounts of solids and oil using the DAF supplemented with coagulants. We are unable to achieve good removal of the largely soluble phosphorous and nitrogen.

It interesting to note that a different polymer program appears to be effective in the Starkist system. While we were unable to get samples of their program for jar test comparison, I have long term experience testing the waste water in both plants. This observation fits well with my past experience. I have repeatedly observed that different chemistry is normally needed in these two facilities. This is due the impact of process differences on the final effluent of these two canneries. I have found that the principal differences that cause this • Page 3 December 13, 2001

variation in chemical requirements relate to variations in oil content and sea water content in the two wastes.

Starkist had recently completed extensive waste water treatment testing in conjunction with their recent efforts to recover DAF sludge in their fish meal product. You have previously looked at the possibility of such recovery over the years, and concluded to date that such recovery would not be possible given the fat content of your sludge, and your quality requirements that you impose on your meal product.

Thank you for this opportunity to be of service to Samoa Packing.

Regards,

Robert J. Cunningham, PE

Rjc/1877

cc: Mr. Cox, Mr. Gebauer

Brett Ransby

From:

"Jim Cox" <jcox@cosintl.com>

To:

Cc:

Sent:

Monday, December 03, 2001 10:05 AM

Testing During Jan. 7 thru Jan 14 Subject:

Per John Brown, we will have to report the following during the week that we are putting the high strength into meal:

3 times per day:

TSS

O&G

TKN

TP

Ammonia

Once per Day

BOD

Twice per Week

CU

ZN

Continuous

Flow

PH

Temp.

Please advise if the lab can do these.

StarKist Samoa, Inc.

December 3, 2001

Mr. Carl L. Goldstein
US EPA Region 9
Pacific Insular Area Program {CMD-5}
75 Hawthorne Street
San Francisco, CA 04105

RE: <u>Temporary Arrangement to Eliminate Ocean Dumping</u>

Dear Mr. Goldstein:

StarKist Samoa has been requested to provide Blue North with a three week period during which the F/V Tasman Sea will be cleaned and repaired. The F/V Tasman Sea is the vessel used to haul and dispose high strength wastewater and DAF sludge pursuant to StarKist's Ocean Dumping Permit.

Due to required production levels StarKist can accommodate a maximum two weeks' downtime. In addition, two weeks' downtime is the longest period allowed under the agreement between StarKist and Blue North. However, due to the critical need to have a serviceable vessel to satisfy the requirements of the Ocean Dumping Permit, StarKist feels it necessary to accommodate Blue North's request.

Therefore, StarKist requests permission to process high-strength wastewater streams through the plant's wastewater treatment system, mixed with the regular process wastewater, for a period of one week. This will eliminate the need for ocean dumping services for that week. The modified process to be used is described below. Timeframe is as follows:

StarKist production downtime: 22-Dec-2001 through 05-Jan-2002

Modified wastewater process: 06-Jan-2002 through 12-Jan-2002

Modified Process

StarKist currently produces approximately 1,000,000 gallons per day of process wastewater and 100,000 gallons per day of high-strength wastewater. The high-strength wastewater is normally collected separately and disposed under the requirements of StarKist's Ocean Dumping Permit, along with sludge produced by the DAF (dissolved air flotation) unit in the wastewater treatment system.

The high-strength wastewater consists of pre-cooker water and fish meal press liquor. Pre-cooker water is a combination of condensed steam from cooking the fish and city water sprayed on the cooked fish to cool them. Press liquor is the liquid waste produced by pressing cooked tuna scrap, prior to sending the scraps to the fish meal drier.

Under the modified process, both high-strength streams will be processed through the wastewater treatment system. The high-strength streams will be combined with the normal process wastewater at the dock sump, allowing adequate mixing time before entering the wastewater treatment system.

From the dock sump, the wastewater is pumped to rotary screens where coarse solids are removed. These coarse solids are processed along with the tuna scrap into fish meal. Following the screens, wastewater is pumped into a surge tank, and then to a pressure tank. In the pressure tank chemicals and compressed air are injected into the wastewater to aid the DAF process. The wastewater then enters the DAF following a series of expansion valves.

In the DAF, the previously injected chemicals pull the solids together to form a floc and compressed air in the water expands to create bubbles that float the floc to the top of the DAF. Scraper arms on the DAF surface collect the floc and skim it into a sludge tank. Clean water flows from the DAF to a flume where temperature and pH are monitored and pH adjusted as needed. Finally, the treated effluent flows to the discharge pipeline. The DAF sludge will be de-watered, combined with tuna scrap and processed into fish meal.

During the week where the modified process is used, GRAS (generally recognized as safe) approved polymers will be used: a polyamine (PWC720) and a cationic emulsion (PWC731). The polymers will be obtained from Pacific Water Consultants.

This modified process is the same used during a two week test period in July 2001. We propose to follow the same effluent monitoring scheme described in your May 10, 2001 letter approving the test. Results of the testing showed that all discharge parameters can be met with the exception of nitrogen and phosphorus.

Condition of F/V Tasman Sea

Some people have expressed concern about the condition of the F/V Tasman Sea and its ability to fulfill the requirements of the Ocean Dumping Permit. Although we believe the vessel can be repaired sufficiently to meet its obligations through the end of the current contract (June 2002), we have requested Blue North develop a back-up plan.

We are also doing research of our own to identify a backup vessel in the event the F/V Tasman Sea is not capable of fulfilling its mission. Be assured that StarKist, in cooperation with Samoa Packing, is investigating both near-term and longer-term options to adequately meet the requirements of the Ocean Dumping Permit.

Thank you for your consideration of this request, and we look forward to hearing from you soon. Please contact me should you have any questions or require additional information.

Sincerely,

STARKIST SAMON, INC.

PHIL THIRKELL General Manager

/tl

cc: Peter Peshut, ASEPAS

John Brown, H. J. Heinz

STARKIST SAMOA, INC. P. O. BOX 368, PAGO PAGO, AMERICAN SAMOA 96799

TELEPHONE: 684/644-4231 PANAFAX: 684/644-2440

FACSIMILE TRANSMISSION

DATE: DECEMBER 3, 2001

FROM: PHIL THIRKELL'S OFFICE

PANAFAX # (684) 644-2440

PAGES: COVER # 3 CLASSIFICATION: <u>URGENT/CONFIDENTIAL</u>

TO : CARL L. GOLDSTEIN, US EPA REGION 9, PACIFIC INSULAR AREA PROGRAM

(CMD-5), 75 Hawthorne Street

LOCATION: SAN FRANCISCO, CA 04105

PANAFAX: (415) 744-1604/1605

SUBJECT: TEMPORARY ARRANGEMENT TO ELIMINATE OCEAN DUMPING

This message is intended only for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution of copying or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return the original message to us at the above address via the U. S. Postal Service. Thank you.

MESSAGE:

Original copy to follow.....

A Division of Star Kist Foods, inc

StarKist Samoa, Inc.



RO Box 358 Page Page Tuerda Island American Samoa 96799

Telephone 684 644-4231 Facernes 684 644-2440

December 13, 2001

Mr. Carl L. Goldstein
US EPA Region 9
Pacific Insular Area Program {CMD-5}
75 Hawthorne Street
San Francisco, CA 04105

RE: Temporary Arrangement to Eliminate Ocean Dumping (Revised)

Dear Mr. Goldstein:

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Thank you for your consideration of this request, and we look forward to hearing from you soon. Please contact me should you have any questions or require additional information.

Sincerely,

STARKIST SAMON INC.

PHIL THIRKELL General Manager

/tl

cc: Peter Peshut, ASEPA John Brown, H. J. Heinz



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street San Francisco, CA 94105

August 12, 2002

Phil Thirkell General Manager StarKist Samoa, Inc. PO Box 368 Pago Pago, AS 96799

Subject: Reporting of NPDES Monitoring Results, NPDES Permit No. AS0000019

Dear Mr. Thirkell:

I write in response to a request from your staff to clarify the reporting periods for submittal of NPDES discharge monitoring results for the subject permit.

Section M of the permit requires that monitoring results obtained during the previous 3 months be summarized for each month and submitted quarterly, and that the reports be postmarked no later than the 28th day of the month following the completed reporting period. The first report for your new permit was due 4 months after the effective date of your permit.

The effective date of your permit is January 23, 2001, therefore, the first 3 months would have ended on April 23, 2001, and the report due (postmarked) on May 28th, 2001.

As I recall, the above reporting period/dates were awkward as StarKist was already on a fiscal year quarterly reporting system. I seem to recall that we (EPA and StarKist) agreed that the reporting period for the new permit should continue with the existing reporting period(s) that were in place, and the DMR's submitted by the end of the month following the reporting period. The reporting periods are as follows:

1st Quarter: October - December 2nd Quarter: January - March 3rd Quarter: April - June

4th Quarter: July - September

The above fiscal year reporting system is preferable to EPA Region 9 and ASEPA, and I presume that it has been working for StarKist. Please confirm for me that these reporting periods for submittal of NPDES DMR's is acceptable to StarKist. {Also, please note that there are no issues regarding the submittal of NPDES DMR's to EFA Region 9.}

Thank you for time and attention to this matter. If you have any questions, please let me know, and please note the new contact information (goldstein.carl@epa.gov; ph: 415-972-3767; fax: 415-947-3560).

Sincerely,

Carl L. Goldstein Program Manager

cc: ASEPA

STARKIST SAMOA, INC. P. O. BOX 368, PAGO PAGO, AMERICAN SAMOA 96799 TELEPHONE: 684/644-4231 PANAFAX: 684/644-2440

FACSIMILE TRANSMISSION

DATE: DECEMBER 13, 2001

FROM: PHIL THIRKELL'S OFFICE

PANAFAX # (684) 644-2440

PAGES: COVER # _ 3 CLASSIFICATION: <u>URGENT/CONFIDENTIAL</u>

TO : CARL L. GOLDSTEIN, US EPA REGION 9, PACIFIC INSULAR AREA PROGRAM

(CMD-5), 75 Hawthorne Street

LOCATION: SAN FRANCISCO, CA 04105

PANAFAX: (415) 947-3560/(414) 947-3591

SUBJECT: TEMPORARY ARRANGEMENT TO ELIMINATE OCEAN DUMPING (REVISED)

This message is intended only for the use of the individual or entity to which it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution of copying or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return the original message to us at the above address via the U.S. Postal Service. Thank you.

MESSAGE:

Original copy to follow.....

Please print or type in the unshaded areas only.

2C ⊕EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS

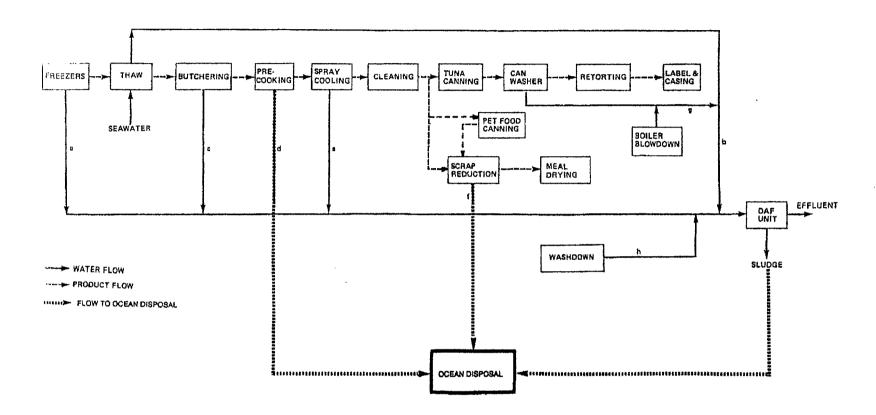
Consolidated Permits Program

L COTTALL L	L BOTPALL LOCATION												
		tude and le	ongitude o	f its location	to the near	rest 15 sec	onds and the name of the receiving water,						
A. OUTFALL	■.	B. LATITUDE		C. LONGITUDE			D. RECEIVING WATER (name)						
(list)	1, 044.	2. MIN.	J. SEC.	1. DEG.	2. MIN.	3, sec.	B. RECEIVING WATER (MARK)						
001	14 S	17		170 W	40	02	Pago Pago Harbor						

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

- A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units lebeled to correspond to the more detailed descriptions in Item B. Construct a water belance on the line drawing by showing average flows between intakes, operations, treatment units, and outfails. If a water belance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.
- B. For each outfell, provide a description of: (1) All operations contributing wastewater to the effluent, including process westewater, sanitary westewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

I. OUT-	2. OPERATION(S) CONTRIBUT		3. TREATMENT					
(list)	a. OPERATION (lbt)	b. AVERAGE FLOW (include units)	a. DESCRIPTION	b, LIST CO TABL	DES FRO			
001	OPERATION ITEM (1)	Percent of Total Flow (2)						
001	Freezer Condensate	0.4	Rotary Screen plus DAF Unit	1-T, 1-H	2-C, 4-B			
	2. Thaw plus Can Washer plus Boiler Blowdown	63.7	Rotary Screen plus DAF Unit	1-T, 1-H	2-C, 4-B			
	3. Butchering	1.7	Rotary Screen plus DAF Unit	1-T, 1-H	2-C, 4-E			
	4. Pre-cooker	3.5	Ocean Disposal					
	5. Spray Cooling	4.3	Rotary Screen plus DAF Unit	1-T, 1-H	2-C, 4-E			
	6. Press-Scrap Reduction	0.8	Ocean Disposal					
	7. Can Washer and Boiler	Included with Item 2	Rotary Screen plus DAF Unit	1-T, 1-H	2-C, 4-E			
	8. Wash Down	25.6	Rotary Screen plus DAF Unit	1-T, 1-H	2-C, 4-E			
	(1) See Attached Figure per Item II A.		÷ · ·					
	(2) See Attached Table on Page 1 B for							
	Percent of Flow Through Outfall				-			
[
[
		4						
ŀ								



WATER FLOW DIAGRAM STARKIST SAMOA, INC. (NPDES Permit Form 2C, Item IIA.)

StarKist Samoa, Inc. - Outfall No. 001 EPA Form 2C NPDES - Item II.B Table of Flows, Sources, and Treatment Technologies

Opera	tions Contributing to Flow ¹	Percent	of Flow ²	Treatment		
Item ³	Description	Total Process Flow	Flow Through Outfall	Description	Codes⁴	
а	Freezer Condensate	0.4	0.4	Rotary Screen plus DAF Unit	1-T, 1-H, 2-C, 4-B	
b	Thaw Water + Can Washer + Boiler Blowdown	63.7	66.6	Rotary Screen plus DAF Unit	1-T, 1-H, 2-C, 4-B	
С	Butchering	1.7	1.8	Rotary Screen plus DAF Unit	1-T, 1-H, 2-C, 4-B	
d	Precooker	3.5	0.0	Ocean	Disposal ⁵	
е	Spray Cooling	4.3	4.5	Rotary Screen plus DAF Unit	1-T, 1-H, 2-C, 4-B	
f	Press Scrap Reduction	0.8	0.0	Ocean	Disposal ⁵	
g	Can Washer + Boiler Blowdown	(include	ed in b)	Rotary Screen plus DAF Unit	1-T, 1-H, 2-C, 4-B	
h	Washdown	25.6	26.7	Rotary Screen plus DAF Unit	1-T, 1-H, 2-C, 4-B	

¹ See attached figure per item II.A (Form 2C).

² Permitted maximum daily flow is 2.9 mgd, average flow (April 2003 to March 2005) was 1.2 mgd, and maximum daily flow is 2.42 mgd.

³ Items referenced to figure attached per item II.A (Form 2C).

⁴ Codes from Table 2C-1 (Form 2C): 1-T = Screening; 1-H = Flotation; 2-C = Chemical Precipitation; 4-B = Ocean Discharge Through Outfall.

⁵ Barged to permitted offshore ocean dumping site - permit OD-93-01 Special

						3. FREC	UENCY			4. FLOW		
OUTFALL		2. OPER	ATIO	N/2)		a DAYS	b. MONTHS		V RATE	b. TOTAL	VOLUME with units)	s DUR
NUMBER (list)		CONTRIBU			•	PER WEEK	PER YEAR	1. LONG TERM AVERAGE	2. WAXIMUM	I. LONG TERM	E. MAXIMUM	ATION (in days)
, ,						average)	average)					
									1			
									}			
PRODUCTI	ON											
. Does an effi	ent guide			ulgated	by EPA unde	er Section 304	of the Clean					
v ا B. Are the limi		the Item III-1			atina avaress	d in terms of	production (o		to Section IV)			
		um appricaci lete Item III-(nt guiu	antile axbrasse	a in terms or	production to		to Section IV			
C. If you answ	ered "yes	"to item III-B	, list th	e quent	tity which rep	resents an ac	tual measure	ment of your	level of produ	ction, expres	sed in the term	s and uni
						MLY PRODUC					3. 055	
S. QUANTITY PER DAY D. UNITS OF MEASURE							HATION, PROD		., KTC.			ALLS
						·	(врес					
564		tons/da	•		Tuna (A	Average,	Feb 200° - maximu	1 - Mar 20 m. Fob 2	005) 001 - Ma	r 2005	001	
171-614		tons/da	ıy.		Tuna (n	mmmum	- IIIaxiiiiu	III, Feb 2	OUT - IVIA	2000		
592		tons/da	ay.	-	Tuna (A	Average,	Apr 2003	- Mar 20	05)			
560 - 613		tons/da	•		Tuna (n	ninimum	- maximu	m, Feb 2	001 - Ma	r 2005		
- 40					T /5	Tutura Dr	oiootod\					
540		tons/da	ay		Tuna (F	uture Pro	ojecteu)			-		
. IMPROVEM	ENTE											
		l bis ans Ead	I 54		مادستان والمناسات		. ii	ing sabadula i	(a. the assets		dina os operati	
	ent equip	oment or pred	ctices o	r sny o	ther environs	mental progra	ms which may	y affect the d	lischarges desc	ribed in this	application? T	his include
or loen cond		parrint donar	· ·			following to	•		to Item IV-B)			, .
IDENTIFICAT	ION OF (TED OUTFA		3. 98	HEF DESCRI	PTION OF PI	ROJECT	فتاما	T.
			8. MG.	b. sec	REE OF BIRCH	IARGE					au, 24	· Acres
	,	•										
											}	

CONTINUED FROM THE FRONT

 Use the space below to I discharged from any our possession. 	ist any of the pollutants listed in Table 2c-3 of the tfall. For every pollutant you list, briefly describe to	instructions, which you know or have reasons you believe it to be pre-	eve reason to believe is discharged or may sent and report any analytical data in y
1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
None	All analytical data has been submitted to EPA under existing NPDES Permit Section D.2.		
	S NOT COVERED BY ANALYSIS V-C a substance or a component of a substance which	h you currently use or manufactur	e as an intermediate or final product or
	YES (list all such pollutants below)	NO (go to	Item VI-B)

PAGE 3 OF 4

CONTINUE ON REVERS

DO YOU Have any knowledge of reason to believe	VII. BIOLOGICAL TOXICITY TESTING DATA Do you have any knowledge or reason to believe that any biological test for acuts or chronic toxicity has been made on any of your discharges or on a										
receiving water in relation to your discharge within the last 3 years? YES (identify the test(s) and describe their purposes below)											
VYES (Identify the test)	s) and describe their purposes below)	NO (go to Section	on VIII)								
conducted on a 24-hour composite they share the joint cannery outfar semi-annual test required by the	The NPDES Permit for discharge of the StarKist effluent requires semi-annual acute toxicity tests conducted on a 24-hour composite of both canneries effluent (StarKist Samoa and Samoa Packing) as they share the joint cannery outfall. The last test was conducted in March 2005 which was the ninth semi-annual test required by the current permits and the twenty-fifth test, over twenty-three semi-annual periods, conducted since testing of the discharge of effluent to the Joint Cannery Outfall began in 1993.										
The permit conditions require that the bioassay tests be conducted with the white shrimp, Penaeus vannami (postlarvae). In the event Penaeus vannami is not available at the time of the tests, the permit specifies the substitute species, Mysidopsis bahia, which now has been renamed Americamysis bahia.											
Were any of the analyses reported in Item V performance and the name, adapted by, each	Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?										
A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)								
AECOS	970 N. Kalaheo Ave., Suite C311	(808) 254-5884	Copper and Zinc								
	Kailua, HI 96734										
Columbia Analytical Services	Kailua, HI 96734 1317 South 13th Ave Kelso, WA 98626	360-577-7222	Priority Pollutants								
	1317 South 13th Ave	360-577-7222	Priority Pollutants								
X. CERTIFICATION	1317 South 13th Ave Kelso, WA 98626										
X. CERTIFICATION I certify under penalty of law that this document assure that qualified personnel properly gather at those persons directly responsible for gathering th	1317 South 13th Ave	tion or supervision in acco y inquiry of the person or pe est of my knowledge and be	rdance with a system designed to irsons who manage the system or clief, true, accurate, and complete.								
X. CERTIFICATION I certify under penalty of law that this document assure that qualified personnel properly gather at those persons directly responsible for gathering th	1317 South 13th Ave Kelso, WA 98626 and all attachments were prepared under my directed evaluate the information submitted. Based on my be information, the information submitted is, to the b	tion or supervision in acco y inquiry of the person or pe est of my knowledge and be sibility of fine and impriso	rdance with a system designed to irsons who manage the system or clief, true, accurate, and complete.								
X. CERTIFICATION I certify under penalty of law that this document assure that qualified personnel properly gather as those persons directly responsible for gathering the lam awere that there are significant penalties f	1317 South 13th Ave Kelso, WA 98626 and all attachments were prepared under my directed evaluate the information submitted. Based on my le information, the information, including the positive submitting false information, including the positive submitting false information, including the positive submitting false information, including the positive submitting false information, including the positive submitting false information, including the positive submitting false information, including the positive submitting false information, including the positive submitting false information, including the positive submitting false information, including the positive submitting false information.	tion or supervision in acco y inquiry of the person or pe est of my knowledge and be sibility of fine and impriso	rdance with a system designed to rsons who manage the system or lief, true, accurate, and complete. nment for knowing violations. (area code & no.)								

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. SEE INSTRUCTIONS.

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OUTFALL NO.

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

				EFFLUENT				3. UN (specify i)	ITS		TAKE (optiona	1)
1. POLLUTANT	a. MAXIMUM	DAILY VALUE	b. MAXIMUM 3	DAY VALUE	C.LONG TERM	AVRG. VALUE	1 d. NO. OF		T	a. LONG	TERM	b. NO. OF
	(1)	(2) MASS	(I)	(2) MASS	CONCENTRATION	(2) MASS	ANALYSES	A, CONCEN- TRATION	b, MASS	CONCENTRATION	(2) MASE	ANALYSES
a. Biochamical Oxygen Demand (BOD)	602.0	8279 (1)	(2)	(2)	427.1	4,277 (3)	24	mg/l	lbs/day			,
b. Chemical Oxygen Demand (COD)	1,400	26,755 (1)	(4)	(4)	(4)	(4)	1	mg/l	lbs/day			
c. Total Organic Carbon (TOC)	214	4,090 (1)	(4)	(4)	(4)	(4)	1	mg/l	lbs/day			
d. Total Suspended Solids (TSS)	388.7 (5)	4,939.4 (6)	190.0	2,422.7	101.6	1,330 (3)	94	mg/l	lbs/day			
e. Ammania (as N)	44.7	539.7 (1)	40.2	491.2 (7)	24.8	248.4 (3)	94	mg/l	lbs/day			
f. Flow	2.42 (8)	~1 .56		ຳ1.20	· · · · · · · · · · · · · · · · · · ·	731	N/A	mgd	VALUE .		
g. Temperature (winter)	*38 *	,	`33 (9)		² 29 [*] (9)		731	°C		VALUE	-	
h, Temperature (summer)	ັ(ີ່ ໄປ້ັ້)	· · · · · · · · · · · · · · · · · · ·	(10)		(10)			•c	•	VALUE		
i. pH	6.5	8.4 (11)	(12)	MAXIMUM (12)			731	STANDAR	DUNITS			

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUT- ANT AND	2. MA	RK 'X'				EFFLUENT	_			4. U	NITS		AKE (optional)
CAS NO.	4.02	b. se-	a, MAXIMUM S	PAILY VALUE	b. MAXIMUM 3	DAY VALUE	C.LONG TERM	AVRG. VALUE	d NO. OF	a. CONCEN-	b. MASS	8. LONG AVERAG	S TERM E VALUE	NO. OF
(if evailable)	PRET	D. BE-	CONCENTRATION	(2) MASS	CONCENTRATION	, (2) MASS	CONCENTRATION	(2) MASS	YSES	TRATION	U. MM33	(I) CONCENTRATION	(2) MASS	YSES
a. Bromide (24959-67-9)	X		21.1						1	mg/l				
b. Chiorine, Total Residual		X												
c. Color	Χ		(1)									·		
d, Fecal Coliform		X												
e. Fluoride (1 6984-48- 8)	Χ		(2)							•				`
f. Nitrate— Nitrite (as N)	X		(3)											

TEM Y-B COM L POLLUT- ANT AND CAS NO. (If evallable)	2. M	ARK 'X			3.	EFFLUENT				4. U	NITS	5. INT	AKE (optional))
ANT AND	9.05	b. a.	a. MAXIMUM I	DAILY VALUE			CLONG TERM	AYRG. VALUE	d. NO. OF		1	PARHION		b. NO. O
	SENT	SENT	CONCENTRATION	(2) MABS	CONCENTRATION	(2) MASS	CONCENTRATION	(2) MASS	ANAL-	S. CONCEN- TRATION	b. MASS	CONCENTRATION	(z) MARS	ANAL.
g. Nitrogen, Total Organic (or N)	X		99.0 (4)	1,497.7	83.8	1,174.2	69.9	925.8	188	mg/l	lbs/day			
h. Oil and Gresse	X		119.8 (5)	1,665.4	62.9	843.2	28.5	374.2	24	mg/l	lbs/day			
i. Phosphorus (ex P), Total (7723-14-0)	X		16.6 (6)	235.8	13.6	189.0	12.0	158.9	188	mg/l	lbs/day			
j. Radioactivity						j			1	<u> </u>	lbs/day			
(1) Alphe, Total		X												
(2) Beta, Total		Χ			-	7								
(3) Redium, Total		X												
(4) Radium 226, Total		X												
k, Sulfete (as SO ₄) (14808-79-8)	X		933						1	mg/l				
l. Sulfide (os 8)	X		4.87						1	mg/l				
m. Sulfite (as SO ₃) (14265-45-3)	X		55						1	mg/l				
n, Surfectents	X		0.07						1	mg/l				
o. Aluminum, Total (7429-90-5)	X		918					, `	1	ug/l				
p. Barium, Total (7440-39-3)	X		5.5						1	ug/l				
q. Boron, Total (7440-42-8)	X		1,820						1	ug/l				
r. Cobalt, Total (7440-48-4)		X	ND						1	ug/l				•
a. Iron, Total (7439-89-6)	X		321						1	ug/l				
t. Magnesium, Total (7439-95-4)	X		(7)											
u. Molybdenum, Total (7439-98-7)		Х	ND						1	ug/l				
v. Mengeness, Total (7439-96-5)	X		22						1	ug/l				
w. Tin, Total (7440-31-5)		X	ND						1	ug/l				
x. Titenium, Total (7440-32-6)	X		6.1 B					·	1	ug/l				

t	FRA I O NI	UMBER (CODY	duam Idam	1 - 6 P 1		ALL LANGE MA
1	EFA I.D. RI	UMBER ICOUY	Irom Mem .	10/Fum 1	HUUIFALI	LRUMBER

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a feecondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2s for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT	2.	MARK	'X'			3.	EFFLUENT				4. U	NITS	5. INTAKE (optional)		
AND CAS NUMBER	A TEST	D. SE.	C. BE-	E. MAXIMUM I	DAILY VALUE	b. MAXIMUM 3	ilable)	c.LONG TERM (if ava	AVRG. VALUE Hlable)	d NO.OF	a. CONCEN-	b. MASS	8. LONG AVERAG	TERM	b, NO. 01
(if available)				TOHOLINKINK	(2) MASS	(I)	(2) MASS	(1)	(2) MASS	YSES	TRATION	U. M. 7.0.3	(1) CONCEN- TRATION	(z) MASS	YSES
METALS, CYANID	E, AN	1	AL PH	ENOLS				ļ	ļ						
1M. Antimony, Total (7440-38-0)		X		44.5 B						1	ug/l				
2M. Arsenic, Total (7440-38-2)		X		17.5 B						1	ug/l				
3M. Beryllium, Total, 7440-41-7)			X	ND						1	ug/l				
4M. Cadmium, Total (7440-43-9)		X		8.6						1	ug/l				
6M. Chromium, Total (7440-47-3)			X	ND						1	ug/l				
6M. Copper, Total (7440-50-8)		X		346 (8)		(9)	(9)	36.5	0.37	24	ug/l	lbs/day			
7M. Leed, Total (7439-92-1)			Χ	ND					·	1	ug/l				
8M. Mercury, Total (7439-97-6)		X		0.27						1	ug/l				
9M. Nickel, Total (7440-02-0)			Χ	ND						1	ug/l				
10M, Selenium, Total (7782-49-2)		X		5.6 B						1	ug/l				
13M, \$liver, Total (7440-22-4)			Χ	ND					·	1	ug/l				!
12M. Theillum, Total (7440-28-0)			X	ND						1	ug/l				
13M. Zinc, Total (7440-66-6)		X		2,650 (10)		(11)	(11)	331.5	3.32	24	ug/l	lbs/day			
14M. Cyanide, Total (57-12-5)			Χ	ND						1	ug/l				
15M. Phenois, Total		X		0.32						1	ug/l				

DIOXIN

2,3,7,8-Tetra-		ĺ
chlorodibenzo-P-	l i	
Dloxin (1764-01-6)		ł

DESCRIBE RESULTS

CONTINUED FROM THE FRONT 1. POLLUTANT 2. MARK 'X' 4. UNITS 5. INTAKE (optional) 3. EFFLUENT AND CAS NUMBER ATKST D. SE. C. SE. S. MAXIMUM DAILY VALUE D. MAXIMUM 35 DAY VALUE C.LONG TERM AVEC. VALUE d. NO. OF INSTITUTE CONCENTRATION (1) MASS CONCENTRATION (1) MASS CONCENTRATION (1) MASS VSES A LONG TERM AVERAGE VALUE b. NO. OF a. CONCENb. MASS TRATION (I) CONCEN-(if available) (2) MARS GC/MS FRACTION - VOLATILE COMPOUNDS 1V. Acroisin ug/l (107-02-8) ND 2V. Acrylonitrile ug/l (107-13-1) 3V. Benzene ND ug/l (71-43-2) 4V. Bis (Chloro-methyl) Ether (542-88-1) ug/l ND **BV. Bromoform** ND ug/l (75-25-2) 6V. Carbon ug/l ND Tetrechloride (56-23-5) 7V. Chiorobenzene ND ug/l (108-90-7) 8V. Chlorodiug/l bromomethane (124-48-1) 9V. Chloroethane (75-00-3) ug/l ND 10V. 2-Chloro-ethylvinyl Ether (110-75-8) ND ug/l 11V. Chioroform ND ug/l (67-66-3)12V. Dichloroug/l ND bromomethene (75-27-4)13V. Dichloroug/l difluoromethane (75-71-8)14V. 1,1-Dichloro-ethane (75-34-3) ug/ ND15V, 1,2-Dichloro-ethane (107-06-2) ug/l ND 16V. 1,1-Dichioro-ethylene (75-35-4) ND ug/l 17V. 1,2-Dichloroug/l ND propene (78-87-5) 18V. 1,3-Dichloroug/l ND propylene (542-75-6) ug/l 19V. Ethylbenzene ND (100-41-4)ug/l 20V. Methyl ND Bromide (74-83-9) 21V. Methyl ug/l NDChloride (74-87-3)

1. POLLUTANT AND CAS						EFFLUENT				4. UI	NITS	ITS 3, INTAKE (optional)			
NUMBER	TEST	LIEVED	C RE-	E. MAXIMUM (I) CONCENTRATION	DAILY VALUE	b. MAXIMUM 3	a DAY VALUE	c.LONG TERM	AVRG. VALUE	d NO.OF	a. CONCEN-	h MASS	AVERAG	TERM	b. NO. OF
(If evallable) GC/MS FRACTION	- VO	LATIL	SENT E CON	CONCENTRATION	(2) MASS	CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	YSES	TRATION		(1) CONCENTRATION	[2] MASS	ANAL.
22V. Methylene Chieride (75-09-2)			Χ	ND		÷				1	ug/l				
23V. 1,1,2,2-Tetra- chloroethane (79-34-5)			X	ND						1	ug/l				
24V. Tetrachioro- ethylene (127-18-4)			X	ND						1	ug/l				
25V, Toluene (108-88-3)		X		0.30 J	:					1	ug/l				
26V. 1,2-Trans- Dichloroethylene (156-60-5)			X	ND						1	ug/l				
27V. 1,1,1-Trl- chioroethane (71-55-6)			X	ND						1	ug/l				
28V. 1,1,2-Tri- chioroethane (79-00-5)			Χ	ND						1	ug/l				
29V. Trichloro- ethylene (79-01-6)			X	ND						1	ug/l				
30V. Trichioro- fluoromethane (75-69-4)			X	ND						1	ug/l				
31V, Vinyl Chioride (75-01-4)			X	ND						1	ug/l				
GC/MS FRACTION	- ACI	D CON	(POUN	IDS											
1A, 2-Chlorophenol (95-57-8)			X	ND						1	ug/l				
2A, 2,4-Dichloro- phenoi (120-83-2)			X	ND						1	ug/l				
3A, 2,4-Dimethyl- phenol (106-67-9)			X	ND						1	ug/l				
4A. 4,6-Dinitro-O- Cresol (534-52-1)			X	ND						1	ug/l				
5A. 2,4-Dinitro- phenol (51-28-5)			X	ND						1	ug/l				
6A. 2-Nitrophenol (88-75-5)			Χ	ND						1	ug/l				
7A. 4-Nitrophenol (100-02-7)			Χ	ND						1	ug/l				
8A. P-Chloro-M- Cresol (59-50-7)	···		X	ND						1	ug/l				!
9A: Pentachloro- phenol (87-86-5)			X	ND						1	ug/l				
194. Phenol (108.98-2)		Χ		220	***					1	ug/l				
A Tri- da les grannol (Batta)			Χ	ND						1	ug/l				

CONTINUED FROM THE FRONT

1. POLLUTANT	2.	MARK	'X'				EFFLUENT				4, U1	IITS	5. INTAKE (optional)		
AND CAS NUMBER	ATEST	A BE- LIEVED PRE- SENT	C BE-	a, MAXIMUM E	AILY VALUE	D. MAXIMUM 3	DAY VALUE	C.LONG TERM	AVRG. VALUE	d NO.OF	s. CONCEN-	b. MASS	A LONG	TERM	b. NO.OF
					(s) MAGE	CONCENTRATION	(2) MASS	CONCENTRATION	(1) MABS	YSES	TRATION	W MA33	(I) CONCEN-	(z) MA99	YSES
GC/MS FRACTION	- BA	SE/NE	JTRAI	COMPOUNDS							`				
1B. Acenaphthene (83-32-9)			X	ND						1	ug/l				
28. Acenaphtylene (208-96-8)			X.	ND						1	ug/l	<u>.</u>			
38. Anthracene (120-12-7)			Χ	ND						1	ug/l				
48. Benzidine (92-87-5)			Χ	ND						1	ug/l				
5B. Benzo (a) Anthracens (56-55-3)			Χ	ND						1	ug/l				
6B. Benzo (a) Pyrene (50-32-8)			Χ	ND						1	ug/l				
78. 3,4-Benzo- fluorenthene (205-99-2)			Χ	ND						1	ug/l				
88. Benzo (ghi) Perylene (191-24-2)			X	ND						1	ug/l				
98. Benzo (k) Fluoranthene (207-08-9)			X	ND						1	ug/l				
10B, Bis (2-Chloro- ethoxy) Methane (111-91-1)			X	ND						1	ug/l				
11B. Bis (2-Chloro- ethyl) Ether (111-44-4)			X	ND						1	ug/l				,
128. Bis /2-Chloroiso- propy® Ether (102-80-1)			X	ND						1	ug/l				
13B. Bis (2-Ethyl- hexyl) Phthelete (117-81-7)			X	ND						1	ug/l				
148, 4-Bromo- phenyl Phenyl Ether (101-85-3)			X	ND						1	ug/l				
158. Butyl Benzyl Phthalene (85-68-7)			X	ND						1	ug/l				
166: 2-Chiloro- nuprithaliene (91-88-7)			Χ	ND						1	ug/l				
178 & Chloro- planty Phony! Sther (7006-72-3)			X	ND					,	1	ug/l				
188. Chrysens (218-61-9)			Χ	ND						1	ug/l				
198. Dibenzo (a,h) Anthracene (83-70-3)			X	ND						1	ug/l				
208. 1,2-Dichloro- benzene (95-50-1)			X	ND						1	ug/l				
218, 1,3-Dichloro- benzene (541-73-1)			X	ND						1	ug/l				

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (If available)	2,	MARK	,Χ,		3. EFFLUENT								5. INTAKE (optional)		
	ATEST.	D. DE- LIEVED PRE- SENT	COL	4. MAXIMUM					AVRG. VALUE	d NO. OF	a. CONCEN- TRATION	b. MASS	AVERAG		b. NO. OF
GC/MS FRACTION		<u> </u>		- Contract C	(z) MASS	CONCENTRATION	(z) MASS	CONCENTRATION	(2) MASS	YSES	, and the same of		(1) CONCENTRATION	(2) MASS	YSES
228, 1,4-Dichloro- berizone (106-46-7)			Χ	ND						1	ug/l				
238, 3,3'-Dichloro- behzidine (9194-1)			X	ND						1	ug/l				
248: Diethyl Phthialate (84-86-2)			X	ND						1	ug/l				
201 Cheretry			Χ	ND						1	ug/l				
COL VEBURYI			X	ND						1	ug/l				1
278, 2,4-Dinitro- tolyene (121-14-2)			X	ND						1	ug/l				
288, 2,5-Dinkro- toluene (605-20-2)			X	ND						1	ug/l				
29B, Di-N-Octyl Phthelete (117-84-0)	-		X	ND						1	ug/l				
308, 1,2-Diphenyl- hydrazine (as Azo- bensens) (122-66-7)			X	ND						1	ug/l				
315. Fluorenthene (206-44-0)			X	ND						1	ug/l				
32B, Fluorene (86-73-7)			Χ	ND						1	ug/l				·
238, Hauschlorobenzene (146-74-1)			X	ND						1	ug/l				
34B, Hexa- chlorobutadiene (87-68-3)			Χ	ND						1	ug/l				
358. Hexachloro- syclopentadiene (77-47-4)			Χ	ND						1	ug/l				
36B, Hexachioro- ethane (67-72-1)			Χ	ND							ug/l				
378, Indeno (1,2,3-cd) Pyrene (193-39-5)			Χ	ND						1	ug/l				
388, Isophorone (78-59-1)			X	ND						1	ug/l				
39B. Naphthalene (91-20-3)			X	ND						1	ug/l				
408. Nitrobenzene (98-95-3)			X	ND							ug/l				
418, N-Nitro- sodimethylamine (62-75-9)			Χ	ND						1	ug/l				
42B, N-Nitrosodi- N-Propylemine (521-64-7)			X	ND						1	ug/l				

CONTINUED FROM THE FRONT

I. POLLUTANT	2.	MARK	'X'		3. EFFLUENT 8. MAXIMUM DAILY VALUE b. MAXIMUM 39 DAY VALUE c.LONG TERM AVRG. VALUE d. NO. OF								5. INTAKE (optional)		
AND CAS NUMBER (if available)	ATKST-	D SE-	COL	a, MAXIMUM E	AILY VALUE	b. MAXIMUM 3		C.LONG TERM	AVRG. VALUE	d NO.OF	4. UN a. CONCEN- TRATION	b. MASS	A LONG	TERM	b. NO. OF
(if eveilable)	eu in-	SENT	SERT	CONCENTRATION	(2) MASS	CONCENTRATION	(2) MASS	(+) CONCENTRATION	(z) MASS	YSES	TRATION		(I) CONCENTRATION	(2) MASS	YSES
GC/M8 FRACTION 438, N-Nitro-	- BA	SE/NE		r	(continued)										
eodiphenylamina (86-30-6)			X	ND						1	ug/l				
44B, Phenanthrene (85-01-8)			X	ND						1	ug/l				
45B. Pyrene (129-00-0)			X	ND						1	ug/l				
468. 1,2,4 - Tri- phiorobenzene (120-82-1)			Χ	ND						1	ug/l				
COME FRACTION	- PE	TICID	E 8												
17. Alerin (308-90-2)			X	ND						1	ug/l				
27. 048HC (319-84-6)			Χ	ND						1	ug/l			:	
3P, β-BHC (319-65-7)			X	ND				-		1	ug/l				
4P. γ-BHC (58-89-9)			Χ	ND						1	ug/l				
5P. Ô-BHC (319-86-8)			Χ	NĐ						1	ug/l				
8P. Chlordane (57-74-9)			Χ	ND						1	ug/l				
7P. 4,4'-DDT (50-29-3)			Χ	ND						1	ug/l				
8P. 4,4'-DDE (72-55-9)			Χ	ND						1	ug/l				
9P. 4,4'-DDD (72-54-8)			Χ	ND					•	1	ug/l				
10P. Dieldrin (60-57-1)			X	ND						1	ug/l				
11P, G-Endosulfan (115-29-7)			X	ND						1	ug/l				
12P. β-Endosulfan (115-29-7)			Χ	ND						1	ug/l				
13P. Endosulfen Sulfete (1031-07-8)			Χ	ND						1	ug/l				
14P, Endrin (72-20-8)			Χ	ND						1	ug/l				
15P, Endrin Aldehyde (7421-93-4)				ND						1	ug/l				
16P. Heptachlor (76-44-8)				ND						1	ug/l				

EPA I.D. NUMBER (copy from Item 1 of Form 1) OUTFALL NUMBER

CONTINUED FROM PAGE V-8

1. POLLUTANT	2.	2, MARK 'X'				3, 1	EFFLUENT				4. UI	NITS	5. IN	TAKE (optio	nal)
AND CAS NUMBER	ATEST ING	D. O.E.	CBE	e. MAXIMUM E	AILY VALUE	b. MAXIMUM 3	RABAY VALUE	CLONG TERM	AVRG. VALUE	d NO.OF	s. CONCEN- TRATION	b. MASS	A LONG	TERM EVALUE	b. NO.OF
				CONCENTRATION	(2) MASS	CONCENTRATION	(z) MASS	(1)	EZAM (s)	YSES	TRATION	U. M.A.3.3	(I) CONCEN-	(2) MASS	YSES
GC/MS FRACTION	- PE	STICID	ES (co	ntinued)									_		
17P. Heptechlor Epoxide (1024-57-3)			X	ND						1	ug/l				
18P. PCB-1242 (53469-21-9)			Χ	ND						1	ug/l				
19P, PCB-1254 (11097-69-1)			Χ	ND						1	ug/l				
20P. PCB-1221 (11104-28-2)			Χ	ND						1	ug/l				
21P. PCB-1232 (11141-16-5)			Χ	ND						1	ug/l				
22P. PCB-1248 (12672-29-6)			Χ	ND					•	1	ug/l				
23P, PCB-1260 (11096-82-5)			Χ	ND						1	ug/l				
24P, PCB-1016 (12674-11-2)			Χ	ND						1	ug/l				
25P. Toxaphene (8001-35-2)			Χ	ND						1	ug/l				

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Notes

Section V, Part A

General Notes: Information presented in this section is based on 24 months of data from April 2003 through March 2005 unless otherwise noted. This time period is representative of current discharge based on daily production numbers (see Technical Support Document).

- (1) Mass loading estimated based on the average daily flow on the day the samples were collected. This applies to reported values for BOD, COD, and TOC.
- (2) BOD samples only collected one day per month.
- (3) Long-term average loading calculations were based on long-term average flow.
- (4) COD and TOC concentrations reported are based on single measurements.
- (5) Maximum TSS concentration value (388.7 mg/l) reported is more than 3 standard deviations above the mean, which is an obvious outlier. The next highest value reported was 258 mg/l.
- (6) Maximum TSS loading value reported (4939.4 lbs/day) is more than 3 standard deviations above the mean, which is an obvious outlier. The next highest value reported was 3125.8 lbs/day.
- (7) Maximum monthly average ammonia loading based on daily flows recorded for the three days ammonia was measured.
- (8) Maximum daily flow was more than three standard deviations above the mean and is anomalous. The next highest value reported was 2.00 mgd for the 24-month period considered and 2.09 the entire permit period through March 2005 (51 months).
- (9) Long term average and monthly temperature values are the averages of the daily maximum temperatures for the respective periods.
- (10) The discharge is in a tropical setting and there is no discernable seasonal difference in effluent temperature.
- (11) The maximum pH value of 8.4 is more than three standard deviations above the mean and appears to be an outlier. The next highest value reported was 7.7.
- (12) Monthly averages were not calculated. Daily values were submitted with DMR's.

Notes

Section V, Part B and C

General Notes: The table below indicates the explanation of the data qualifiers given in Section V, Part B and C. With the exception of data provided for nitrogen, oil and grease, and phosphorus, all data is from a priority pollutant analysis of a 24-hr composite effluent sample collected in September 2004. The priority pollutant scan of effluent is stipulated in Section D.2 of the StarKist Samoa NPDES Permit No. AS 0000019.

	Data Qualifiers for StarKist Samoa Effluent										
Constituents	Symbol	Interpretation									
All	ND	The compound was analyzed for, but was not detected at or above the MRL/MDL (Method Reporting Limit or the Method Detection Limit)									
All	ug/l	Unit is actually $\mu g/l$, text formatting can't be changed in Form 2C *.pdf file.									
Metals	В	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL									

- (1) Color is known to be present at low levels but is not considered an important parameter. No analyses have been conducted within the period of the current permit. A color measurement made during the first permit period was reported as <10 ACPU.
- (2) Flouride is believed present, even though not tested, as fluoride is a major constituent of seawater. StarKist Samoa uses seawater for thaw water, which is then discharged with the effluent, into seawater.
- (3) StarKist Samoa does not measure Nitrate-Nitrite (as N) but rather regularly measures Total Kjeldahl Nitrogen (TKN) and Ammonia, which is reported on the DMRs.
- (4) The values reported are for Total Nitrogen. The values provided for nitrogen are from the DMRs and do not include the single value measured in the September 2004 priority pollutant analysis.
- (5) Oil and Grease measured in StarKist Samoa's effluent is from organic fish material and not from petroleum based oil and grease. The values provided for oil

STARKIST SAMOA FORM 2C NPDES PERMIT RENEWAL APPLICATION (AS0000019) NOTES FOR TABLE V PAGE 3 OF 3

and grease are from the DMRs and do not include the single value measured in the September 2004 priority pollutant analysis.

- (6) The values provided for phosphorus are from StarKist Samoa DMRs and do not include the single value measured in the September 2004 priority pollutant analysis.
- (7) Total magnesium was not tested in the September 2004 priority pollutant analysis. Magnesium is present in StarKist Samoa's effluent as it is a minor constituent in seawater which is used as thaw water and then is discharged with the effluent, into the seawater receiving water.
- (8) The value reported for copper (346 μ g/l) is an outlier as it is more than 3 standard deviations from the mean (36.5 μ g/l). The next highest copper value is 100.0 μ g/l.
- (9) The value reported for zinc (2650 μ g/l) is an outlier as it is more than 3 standard deviations from the mean (331.5 μ g/l). The next highest zinc value is 351.1 μ g/l.





A Division of East disc Bus. P.O. Box 368 Pago Pago: Turats (1999) American Samos (1999)

Telephone: 6:4 64.5 cm. hassimile (6:4 64.5).

Alexis Strauss
Director
Water Division
EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

RE: NPDES Permit Renewal Application for StarKist Samoa (AS0000019)

Dear Director Strauss:

Enclosed please find completed Form 1 and Form 2C for the renewal of the existing NPDES Permit for StarKist Samoa, which expires on January 23, 2006. StarKist Samoa has performed a substantial and significant amount of effluent and receiving water monitoring during the term of the existing permit. Based on these data StarKist Samoa believes the current level of monitoring can be reduced without compromising the purpose of the monitoring. The proposed level of future monitoring will continue to maintain an appropriate level of environmental protection for the receiving water. Based on the monitoring data StarKist Samoa recommends that the renewal permit conditions be established as described below in this letter.

Our consultant, CH2M HILL, is preparing a comprehensive review of these data and a Technical Support Document supporting these recommendations will be provided to you and to American Samoa Environmental Protection Agency. This document will also support the application for a Water Quality Certificate and Definition of Mixing Zones that will be submitted to the American Samoa Environmental Quality Commission prior to 120 days before the current NPDES permit expires.

Outfall Description

StarKist Samoa and Samoa Packing canneries, in American Samoa, discharge treated fish process wastewater (without the high strength waste component) through a shared single outfall and diffuser, the Joint Cannery Outfall (JCO). The JCO is located in Pago Pago Harbor approximately 8400 feet seaward from the previous cannery discharge points and began operation in February 1992. The JCO terminates in a multiport diffuser at a depth of approximately 176 feet in the Outer Harbor. The JCO diffuser consists of four active and two inactive (intentionally blocked) ports. The JCO discharge is in the center of a mixing zone for total nitrogen (TN) and total phosphorous (TP). Small mixing zones for ammonia, copper, and zinc have also been established within the region of rapid initial dilution.

Prior to the implementation of high strength waste segregation and use of the JCO, the canneries discharged treated wastewater into the Inner Harbor though two outfalls. These outfalls terminated in about 80 feet of water in open-ended pipes without diffusers. In August 1990 both canneries started high strength waste segregation and offshore ocean disposal of the high strength waste streams (those process streams that are highest in nitrogen, phosphorous, suspended solids, and BOD). The combination of the high strength waste segregation and the use of the JCO have resulted in a markedly improved water quality in Pago Pago Harbor.

Each of the canneries has separate NPDES Permits with effluent limitations and requirements for Pago Pago Harbor receiving water monitoring. The canneries cooperate in implementation of the receiving water monitoring. This application addresses only the NPDES Permit renewal for StarKist Samoa.

Proposed Effluent Limitations (Permit Section A):

StarKist Samoa proposes that the <u>existing effluent limitations remain as currently established</u> except for the monitoring frequency for copper and zinc. The existing limitations and the discharge conditions for the current permit period are as follows:

- Flow is currently limited to 2.9 mgd as a daily maximum. This value has not been exceeded during the current permit period, with a measured daily maximum flow of 2.42 mgd. There is no limitation for 30-day average flow since the original evaluation done for the present JCO location was based on a continuous flow at the permitted level.
- BOD₅ is currently monitored and reported only without a numerical limitation. There have been no instances of dissolved oxygen suppression in Pago Pago Harbor attributable to the discharge. The American Samoa Water Quality Standard (ASWQS) for dissolved oxygen is consistently met based on receiving water quality monitoring. There is no reason at this time to establish a limitation for BOD.
- Suspended solids loading is limited to a 30-day average of 2996 lbs/day and a daily maximum of 7536 lbs/day. The 30-day average was exceeded once during the permit period during January 2002. The daily maximum was not exceeded over the entire permit period (with a daily maximum of 6521 lbs/day reported in January 2002). The exceedance occurred during a time when the high strength waste, normally disposed of at the permitted ocean dumpsite, was diverted through the JCO. This was done with the permission of EPA because of problems with the vessel used for ocean disposal of high strength waste.
- Oil and grease is limited to a 30-day average of 763 lbs/day and a daily maximum of 1907 lbs/day. The 30-day average limitation was exceeded three times and the daily maximum limitation was exceeded twice during the current permit. In both cases one of the exceedances was during January 2002, when the high strength waste was being discharged through the JCO. The other exceedances appear to be

- outliers and in the past two years only one 30-day average exceedance (843 lbs/day) has been reported.
- Total phosphorous is limited to a 30-day average of 192 lbs/day and a daily maximum of 309 lbs/day. The 30-day average limitation and the daily maximum limitation were each exceeded three times. In both cases one of the exceedances was during January 2002. The other exceedances appear to be outliers and the most recent exceedance (daily maximum of 358 lbs/day) was in March 2003.
- Total nitrogen is limited to a 30-day average of 1200 lbs/day and a daily maximum of 2100 lbs/day. The 30-day average limitation was exceeded six times and the daily maximum limitation was exceeded five times during the current permit. In both cases one of the exceedances was during January 2002. However, the most recent exceedance (daily maximum of 2910 lbs/day) was in March 2003, and the limitation has not been exceeded since that time.
- Acute toxicity is monitored and reported only and is discussed in more detail in the recommendations concerning other permit conditions (Permit Condition D. Toxicity) below.
- Total ammonia is limited to a concentration of 133 mg/l as a daily maximum.
 The only exceedance during the current permit was during January 2002. The
 receiving water quality monitoring shows that the water quality standard is
 consistently met.
- Temperature is limited to a 30-day average of 90 °F and a daily maximum of 95°F. The 30-day average was exceeded only once, and only by 1 °F. The daily maximum has been exceeded numerous times, but recently with lower frequent. The last time the daily maximum temperature was exceeded was in June of 2004. Extensive receiving water monitoring using a highly accurate and precise oceanographic vertical profiling instrument has failed to demonstrate any measurable effect of the discharge in the vicinity of the outfall diffuser at a resolution of less than ±0.1 °C.
- Total copper is limited to a 30-day average concentration of 66 μg/l and a daily maximum of 108 μg/l. The current permit requires monitoring once per month, so only the daily average limitation can be reasonably compared to the measurements. The daily average value has been exceeded only once during the permit period and the measurement was obviously an outlier and was more than 6 standard deviations above the mean. Without the outlier the average value was 16.9 μg/l. The receiving water monitoring consistently demonstrated copper concentrations well below the ASWQS of 3.1 μg/l in the vicinity of the discharge and throughout the Harbor. Therefore, StarKist Samoa proposes that the monitoring frequency be reduced and that copper be measured concurrently with and using the same composite sample as used for the acute toxicity bioassay testing.

- Total zinc is limited to a 30-day average concentration of 1545 μg/l and a daily maximum of 1770 μg/l. The current permit requires monitoring once per month, so only the daily maximum limitation can be reasonably compared to the measurements. The daily maximum value has been exceeded only once during the permit period and the measurement was obviously an outlier and was more than 6 standard deviations above the mean. Without the outlier the average value was 262 μg/l. The receiving water monitoring consistently demonstrated zinc concentration well below the water quality standard in the vicinity of the discharge and throughout the Harbor. Therefore, StarKist Samoa proposes that the monitoring frequency be reduced and that zinc be measured concurrently with and using the same composite sample as the acute toxicity bioassay testing.
- pH is limited between 6.5 and 8.6 with the condition that the pH cannot remain outside these limits more than 7 hours and 26 minutes in any calendar month and no individual excursion can be more than 60 minutes. Neither the lower or upper criterion has been exceeded for any length of time since March 2002. Receiving water pH, measured by a vertical profiling instrument, has not shown any measurable effect of the discharge, and consistently meets the ASWQS.

Proposed Discharge Specifications (Permit Section B)

StarKist Samoa proposes that this section stay essentially the same as in the current permit with the exception of removing reference to certain station locations as discussed for Permit Section E (Receiving Water Quality Monitoring Program) below. StarKist Samoa believes the reduction of the number of monitoring stations is justified based on the extensive Pago Pago Harbor receiving water quality data collected during the existing permit period.

Proposed Protected and Prohibited Uses (Permit Section C)

StarKist Samoa proposes that this section stay the same as in the current permit.

Proposed Toxicity Testing (Permit Section D)

StarKist Samoa proposes three changes to this section of the permit as follows:

• The test organism should be specified as *Americamysis bahia*. The current permit specifies *Penaeus vannamei* with a provision for using *Mysidopsis bahia* if *P. vannamei* are not availble. It is noted that *A. bahia* is the same organism as *M. bahia*, and has recently been renamed. *P. vannamei* has not been available for use in bioassay testing for many years and the data for the effluent is nearly all based on *A. bahia*. Therefore, specification of this organism is a reasonable approach for the new NPDES Permit.

- StarKist Samoa proposes that the frequency of testing be reduced to once per year
 from twice per year. The database for the bioassay testes extends over the past 12
 years and has been consistent for that time period with some indication of
 improvement in the effluent quality (the data will be summarized in the Technical
 Support Document). Annual testing is believed adequate for monitoring in the
 future.
- The dilution series should be specified as 100%, 50%, 25%, 12.5%, and 6.25%. This series appears to be appropriate based on the test conducted during the current permit period. However, provision to adjust this series if necessary should be indicated in the permit language. The permit language recognizes the difficulty in meeting holding times and temperature requirements of the sample and this language should be kept in the new permit.

Proposed Receiving Water Quality Monitoring (Permit Section E)

A semi-annual Pago Pago Harbor receiving water quality monitoring program has been conducted jointly by StarKist Samoa and Samoa Packing over the period of the current permit. This program extends the monitoring done under the previous permit and other studies done during the feasibility planning of the JCO. The monitoring has also been extended by the additional Harbor monitoring being conducted by the Utulei wastewater treatment plant (WWTP).

The receiving water monitoring consistently demonstrates that ASWQS are generally met throughout Pago Pago Harbor. Occasional excursions above the water quality standards numerical criteria are typically associated with natural events and watershed runoff events not associated with the canneries' discharge. Comparison with the values measured at the reference site outside the Harbor indicates that it is usually impossible to see a measurable effect of the cannery discharge in the water column. Based on the available data StarKist Samoa believes that the receiving water monitoring should be minimized. A minimum monitoring effect could be continued with additional monitoring triggered if results indicate a potential problem. The proposed monitoring is as follows:

- Maintain the current semi-annual monitoring periods to match the two climatic and oceanographic seasons of tradewind and non-tradewind.
- Reduce the number of monitoring stations to five. Station 5 (open coast reference), Stations 8, 8A, and 14 (near discharge), and Station 13 (Inner Harbor reference). The rationale for these stations is that by monitoring those stations closest to the discharge any potential problems would be most easily discerned. Monitoring at three depths at each station, as currently required, would be continued.
- Reduce the parameters monitored as follows:

- Eliminate monitoring for metals except for copper and zinc, which have mixing zone limitations. StarKist Samoa has been monitoring for arsenic, lead, and mercury as well as copper and zinc, for informational purposes. All five metals have consistently been below the water quality standards and the informational monitoring has served its purpose and is no longer required.
- Eliminate the monitoring for nutrients (nitrogen and phosphorous) with the exception of ammonia. Ammonia is retained because there is a mixing zone limitation for this toxic parameter. There are also mixing zone limitations for nutrients including total nitrogen (TN) and total phosphorous (TP). However, by monitoring for chlorophyll-a (to be retained) and light penetration (see item below) the endpoint effects of these nutrients will be monitored. If the chlorophyll-a values increase, this could trigger more extensive monitoring for nutrients to determine the cause of the problem.
- Eliminate monitoring for turbidity (in grab samples) and TSS. Replace the monitoring for these parameters with direct in situ measurement of light penetration using a PAR meter to measure a vertical profile of light penetration. (The current practice of using Secchi depth would be discontinued.) If the light penetration values decrease, this could trigger more extensive monitoring for nutrients to determine the cause of the problem.
- Vertical profiles of temperature, salinity, turbidity, and dissolved oxygen would be continued and measured at each station. However, StarKist Samoa proposes to eliminate vertical profiles of pH since in marine waters this parameter is constrained within a known range. There has been no measurable effect from the discharge, and it can be demonstrated that such an effect will not occur (as described in the Technical Support Document that will be provided as referenced above).

Section D of the current permit contains a trigger for additional studies. StarKist Samoa proposes that this section of the permit be modified so that more extensive monitoring would be defined and the trigger for conducting such monitoring would also be well defined. The additional monitoring would be consistent with the existing monitoring requirements, and would be explicitly described in the permit language. The expanded monitoring could be triggered if water quality standards for copper, zinc, ammonia, or light penetration and chlorophyll-a are not met for two consecutive monitoring episodes at Stations 8 and 8A. Specific proposed permit language will be provided by StarKist Samoa in the Technical Support Document.

Proposed Sediment Monitoring (Permit Section F)

StarKist Samoa and Samoa Packing have conducted numerous sediment monitoring episodes over the past decade. The monitoring has been aimed at tracking the sediment quality, and its possible effect on water quality, at the location of the previous cannery Inner Harbor outfalls, and in the vicinity of the existing deep water JCO in the Outer Harbor. This monitoring indicates a gradual improvement in Inner Harbor sediments and no degradation for Outer Harbor sediments. These trends are supported by results from ASEPA's recent Sediment Toxicity Study. Sediment changes are generally only discernable over long time periods. Based on the previous results StarKist Samoa proposes that the sediment monitoring frequency and sample set be modified as follows for the renewal permit:

- Sampling will be done once during the permit cycle (at year five of the permit) to
 determine if any degradation in the sediments near the discharge point can be
 observed. Based on the past data and the known long-term nature of changes in
 sediments the reduction in frequency is appropriate. The sediment data proposed
 will be available for the next round of permit renewal.
- Stations sampled will include Stations OH1 and OH2 (near the diffuser), OH4
 (Outer Harbor reference), IH1 (near old cannery outfalls) and IH3 (Inner Harbor
 Reference). Stations OH3 (near the Utulei WWTP Outfall) and IH2 (central
 Inner Harbor Channel) have been included in the past for informational purposes.
 These stations do not directly relate to the past or present cannery operations and
 the required information collected, to date, is sufficient. Therefore, these two
 stations are proposed for elimination from the sediment monitoring.
- It is proposed that the same suite of parameters be measured as in the current permit with the following exceptions:
 - Ocopper and zinc will be measured only at Stations OH1 and OH2. This will provide a comparison to past levels at the stations in the vicinity of the discharge to assess any potential effects of the discharge. Informational monitoring at other stations has served its intended purpose and is no longer required.
 - Mercury, lead, and arsenic have been monitored for informational purposes at all stations. This monitoring has provided the required data and is no longer needed.

Proposed Coral Reef Survey (Permit Condition G)

StarKist Samoa and Samoa Packing, and more recently the Utulei WWTP, have been conducting periodic coral reef surveys in Pago Pago Harbor since 1991. These surveys, although semi-quantitative, have clearly shown that there has been no further degradation of the coral reefs in the Harbor over that time period since the cannery outfall was removed from the Inner Harbor (August 1990). The data suggests, qualitatively, that

there has been improvement throughout the Harbor. This is also the case in those areas closest to the current JCO discharge point. With the exception of hurricane effects on coral reefs, the only locations in the Harbor under continuing stress for coral reef development are areas adjacent to stream runoff and not associated with the deep cannery JCO discharge.

Existing conditions in the Harbor (not adjacent to stream mouths) are obviously not degrading the health of the coral reef. The cannery discharge and Harbor water quality is not expected to change in the future. Therefore, StarKist Samoa believes that the water quality monitoring proposed above is sufficient to maintain the existing protection of the coral reef and proposes that the coral reef surveys be discontinued for the next five-year permit period. EPA can reinstitute the surveys in the future if conditions or other sources indicate there may be changes in coral reef conditions attributable to water quality factors.

Proposed Other Permit Conditions

In addition to those sections of the current permit there are a number of other sections in the permit that require studies or monitoring. StarKist Samoa understands that Section H (Fish Tissue Study) and Section I (Sea Turtle Review) were one-time studies in the current permit and will not be required in the renewal permit. Other conditions in the permit address administrative and procedural issues and will remain as currently described or modified and updated by EPA as appropriate.

Proposed Interim Monitoring

In the interim period between the expiration date of the current permit and renewal date of the NPDES Permit, StarKist Samoa proposes that the suggested changes to the semi-annual receiving water monitoring and effluent toxicity testing be implemented in place of the present monitoring requirements. These changes are outlined above in the sections titled "Proposed Receiving Water Quality Monitoring (Permit Section E)" and "Proposed Toxicity Testing (Permit Section D)".

We look forward to working with EPA and American Samoa EPA in the development of the renewal permit. If you have any questions or require additional data please feel free to contact me at your convenience. Thank you for your time and consideration of this matter,

Sincerely.

Brett Butler

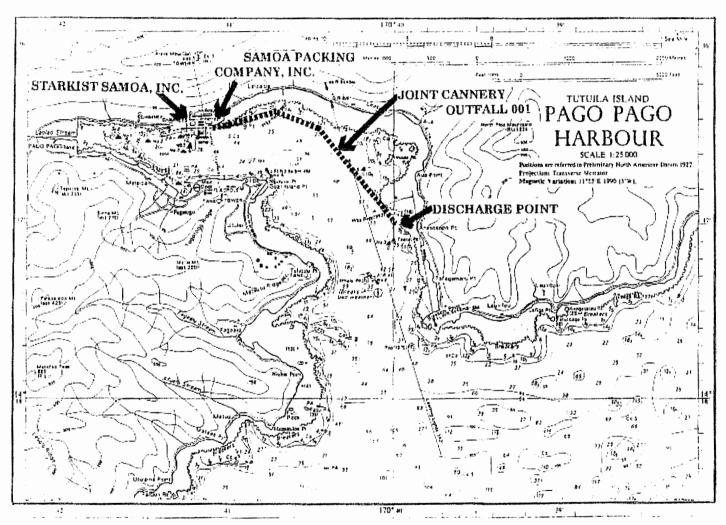
General Manager

cc: Carl Goldstein /USEPA; Peter Peshut /ASEPA; Steve Costa /CH2M HILL

Form Approved.	OMB No.	2040-0086.
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FORM	0 ED			INFORM	CTION AGENCY	I, ÉPA I.D. NUMBER					
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Attach to this application a topographic map of the the outline of the facility, the location of each of treatment, storage, or disposal facilities, and each water bodies in the map area. See instructions for p	its existing and prowell where it injec-	oposed intake ar ts fluids undergr	nd discharge st	ructures, each of its	s hazardous waste
XII. NATURE OF BUSINESS (provide a brief description)	Consider sides, in the section of the contraction o		and the second		The second secon
StarKist Samoa conducts the processing and canning pet food, and the processing of fish by-products into diffuser it shares with the adjoining cannery, Chicke water, Pago Pago Harbor's outer reach in 176 feet of	fish meal. StarKis n of the Sea Samoa	t Samoa's DAF t	reated wastew	ater is discharged the	hrough a outfall and
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XIII. CERTIFICATION (see instructions)					
I certify under penalty of law that I have personal attachments and that, based on my inquiry of to application, I believe that the information is true, false information, including the possibility of fine a	hose persons imme accurate and comp	diately responsi	ble for obtain	ing the information	contained in the
A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATIU	IRE O		C. D	ATE SIGNED
Brett Butler, General Manager	1/2-	(4/6	-	7/	125/05
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1.OCATION MAP FOR JOINT CANNERY OUTFALL PAGO PAGO HARBOR, AMERICAN SAMOA (NPDES Permit General Form 1, Item XI.)

Facility Name: STARKIST SAMOA, INC	AS0000019
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OPTIONAL FORM 41 (Rev. 1-94)
Prescribed by GSA
UNICOR FPI - SST

StarKist Samoa, Inc.



October 07, 2005

A Division of Star-Kist Foods, Inc. 4'.11 PM

P.O. Box 368 Pago Pago, Tutuila Island American Samoa 96799

Telephone: 684 644-4231 Facsimile: 684 644-2440

Mr. Carl L. Goldstein U. S. EPA Region 9 Pacific Insular Area Program (CMD-5) 75 Hawthorne Street San Francisco, CA 94105

Dr. Toafa Vaiaga'e Director, AS EPA Office of the Governor EOB Utulei, American Samoa 96799

Gentlemen:

Re: <u>Discharge Monitoring Report for the Months of July, August and September of 2005, under NPDES No. AS0000019 as issued to Star Kist Samoa, INC.</u>

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of July, August and September of 2005.

Star Kist Samoa met all Effluent limits.

Sincerely

Lance Ihaka

Manager, Engineering and Maintenance

LI \ ls : \ npdes \samoa

Attachments:

cc:

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.

Mr. Peter Peshut

Mr. Brett Butler

PERMITTEE NAME/ADDRESS (Include Facility Name/Location (/ D(forent) NAME STAR-KIST SAMOA

ADDRESSPO BOX 368 PAGO PAGO

AS 96799

FACILITY STAR-KIST SAMOA TUNA CANNERY LOCATION AGO PAGO AS 96799

ATTN: MR. JOE CARNEY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

AS0000019 PERMIT NUMBER

FROM

001 A DISCHARGE NUMBER

MONITORING PERIOD YEAR MO DAY YEAR MO DAY UI TO 03 151

MAJOR

F - FINAL DISCHARGE 001/MONTHLY

*** NO DISCHARGE |

NOTE: Read instructions before completing this form.

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COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PAGE

NAME STAR-KIST SAMOA

ADDRESSFO BOX 368 PAGD PAGD

AS 96799

FACILITY STAR-KIST SAMOA TUNA CANNERY LOCATION AGD PAGD AS 96799

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

AS0000019 PERMIT NUMBER

07

FROM

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001 A DISCHARGE NUMBER

MONITORING PERIOD YEAR MO DAY YEAR MO DAY 01 TO 05 07 31

MAJOR

Form Approved. OMB No. 2040-0004

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*** NO DISCHARGE | | *** NOTE: Read instructions before completing this form.

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PERMITTEE NAME/ADDRESS (Include Facility Name/Location (f Different) NAME STAR-KIST SAMOA

ADDRESSPO BOX 368 PAGO PAGO

AS 96799

FACILITY STAR-KIST SAMDA TUNA CANNERY LOCATION AGE PAGE AS 96799

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

AS0000019 PERMIT NUMBER

001 A DISCHARGE NUMBER

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F - FINAL DISCHARGE 001/MONTHLY

*** NO DISCHARGE |

PARAMETER		QU	JANTITY OR LOADI	NG	QUAI	LITY OR CONCENT	RATION		NO.	PREQUENCY	SAMPLE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	EX	ANALYSIS	TYPE
TEMPERATURE, WATER DEG. FAHRENHEIT	SAMPLE MEASUREMENT	李子子本本本	女体女女女女		****	83	92	(15)			
00011 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	****	*****	***	*****	30DA AVG	DAILY MX	DEG. F		UDUS	ONTINO:
80D, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	4500.8	4500.8	(26)	各本本本本本	******	本格特特特				
00310 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	REPURT MO AVG	DAILY MX	_BS/DY	****	****	*****	***		MONTH	HOMPLOS
PH	SAMPLE MEASUREMENT	***	经济经济经济		6.6	****	7.2	(12)			
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	***	林林林林林	***	5.5 MINIMUM	****	8.6 MAXIMUM	SU	(UOUS	CONTIN
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	2066	2983.9	(26)	****	神经体体体验	经基本条件				
00530 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	MO AVG	7536 DAILY MX	LBS/DY	****	****	****	***		VEEKLY	COMPOS
NITROGEN, TOTAL (AS N)	SAMPLE MEASUREMENT	872.3	1075.2	(26)	*****	*****	本本本本本本				
00600 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	MD AVG	DAILY MX	_BS/DY	*****	****	经接收条件	***		MONTH	:OMPOS
NITROGEN, AMMONIA TOTAL (AS N)	SAMPLE MEASUREMENT	李林安本本於	存存存存存		安全安全等	***	36.7	(19)			
00610 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	*****	*****	DAILY MX	MG/L		EEKEY	MIFE
PHOSPHORUS, TOTAL (AS P)	SAMPLE MEASUREMENT	150.5	181.8	(26)	经验检验检验	****	各本各本本本				
00665 1 0 0 EFFLUENT GROSS VALUE	LUENT GROSS VALUE REQUIREMENT		DAILY MX	LBS/DY	****	****	****	***		MONTH	:OMPOS
NAME/TITLE PRINCIPAL EXECUTIVE	prepare	d under my direction or su	this document and all attach pervision in accordance with	a system designe	ed			TELEPHON	E	DA	TE
LANCE IHAKA Manger Engineerin	roperly gather and evaluate f the person or persons who le for gathering the informal wiedge and belief, true, accu	manage the system tion, the information trate, and complete	lon te.	In				65 W	10		
TYPED OR PRINTED	1 am aw includin	are that there are significal g the possibility of fine and	nt penalties for submitting for imprisonment for knowing	violations.		ATURE OF PRINCIPAL FICER OR AUTHORIZE		A NUMBER	3	YEAR M	O DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PAGE

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different) NAME STAR-KIST SAMOA

ADDRESSFO BOX 368 PAGD PAGD

LOCATION AGD PAGD

AS 96799

FACILITY STAR-KIST SAMDA TUNA CANNERY AS 96799 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

AS0000019 PERMIT NUMBER

FROM 05

001 DISCHARGE NUMBER

MONITORING PERIOD MO DAY YEAR MO DAY 08 01 TO 05 08 31 MAJOR

F - FINAL DISCHARGE 001/MONTHLY

*** NO DISCHARGE | | *** NOTE: Read instructions before completing this form.

PARAMETER	1		QUANTITY OR LOADING			QUAL	RATION			FREQUENCY	SAMIFLE	
			AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	EX	ANALYSIS	TYPE
INC TOTAL RECOVERABLE	SAMPL MEASUREN		*****	****		*****	219	219	(28)			
01094 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREM	Contract to the	华华华华华	安林特殊特殊 婚	***	各种种种种	1545 30DA AVG	1770 DAILY MX	UG/L		NCE/ MONTH	COMPO
OPPER TOTAL RECOVERABLE	SAMPL MEASUREN	_	*****	****		****	<10	<10	(58)			
01119 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREM	100000000	****	哲學培养排件 潦	***	非长长长 体	66 30DA AVG	108 DAILY MX	UG/L		NCE/ MONTH	COMPO!
L AND GREASE SAM			439.1	825.3	(26)	****		****				
)3582 1 0 0 FFLUENT GROSS VALUE	PERMIT REQUIREM	0120001020020	763 MO AVG	1907 DAILY MX	_BS/DY	****	*****		***		##X # Y	RAB
LOW, IN CONDUIT OR THRU TREATMENT PLANT	SAMPL MEASUREN		*****	1.884008	(03)	****	*****	****				
0050 1 0 0 FFLUENT GROSS VALUE	PERMIT REQUIREM	CONTRACTOR S	李林林林林	2.9 DAILY MX	MGD	并并安体并	- 特特特特快快	计非共长性 李	***		ONTIN	CORDE
	SAMPL MEASUREN								= 1			
	PERMIT REQUIREM	300000000000000000000000000000000000000										
	SAMPLI MEASUREM											
	PERMIT REQUIREM		nggalanan magamakan manan ander asimi di Description di Menghin									
3 10	SAMPLE MEASUREMENT PERMIT REQUIREMENT		translation in the state of the			and a facility of the same of a sure of a district of a sure of a district of a sure of a district of a sure of a sure of a district of a sure of	ing in the state of the state o					
2 14 2								-1-1				
				his document and all attachn pervision in accordance with		I			TELEPHON	E	DA	TE
LANCE IHAKA sub-		o assure ubmitted ir those p	that qualified personnel p i. Based on my inquiry of ersons directly responsible	roperly gather and evaluate to the person or persons who me for gathering the information riedge and belief, true, accur	the information nanage the system, on, the information		ph			-	65 10	10
Mander Budrueerru	9			t penalties for submitting fait	and compacted		TURE OF PRINCIPAL	and the second second second		1		

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location (f Different) NAME STAR-KIST SAMOA

ADDRESSPO BOX 3682 PAGD PAGD

AS 96799

FACILITY STAR-KIST SAMOA TUNA CANNERY LOCATIONPAGE PAGE AS 96799

ATTN: MR. JOE CARNEY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

TO

DAY

01

AS0000019 PERMIT NUMBER

YEAR MO

001 A

DISCHARGE NUMBER MONITORING PERIOD

YEAR MO DAY

30

F - FINAL DISCHARGE 001/MONTHLY

MAJOR

*** NO DISCHARGE |

NOTE: Read instructions before completing this form.

PARAMETER		QL	JANTITY OR LOADI	NG	QUAL	ITY OR CONCENT	RATION		NO.	FREQUENCY	SAMPLE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	EX	ANALYSIS	TYPE
TEMPERATURE, WATER DEG. FAHRENHEIT	SAMPLE MEASUREMENT	****	****		****	84	89	(15)			
00011 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	****	*****	30DA AVG	95 DAILY MX	DEG. F		UDUS	CONTIN
ROD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT		4412.4	(26)	****	****	****				
00310 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	MO AVG	DAILY MX	_BS/DY	特特关键传统	长头头头头	****	***		NCE/ MONTH	COMPOS
of [m]	SAMPLE MEASUREMENT	经存货条件	转转转转转		6.7	****	7.1	(12)			
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT		*****	****	6.5 MINIMUM	****	8.6 MAXIMUM	su	3	UDUS	ONTIN
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	2284	2825.2	(26)	***	****	*****	-			
00530 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	2996 MD AVG	7536 DAILY MX	_BS/DY	****	*****	****	****	1	EEKLY	COMPOS
NITROGEN, TOTAL (AS N)	SAMPLE MEASUREMENT	838.2	1043.0	(26)	科林林林林	****	计计计计计				
00600 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	1200 MD AV9	DAILY MX	_BS/DY	*****	*****	*****	****		NCE/ MONTH	POMPOS
NITROGEN, AMMONIA TOTAL (AS N)	SAMPLE MEASUREMENT	安林安林林	****		****	****	31.1	(19)			
00610 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	*****	*****	***	*****	*****	DAILY MX	MG/L		EEKLY	COMPOS
PHOSPHORUS, TOTAL (AS P)	SAMPLE MEASUREMENT	156.6	168.1	(26)	***	****	****				
00665 1 0 0 EFFLUENT GROSS VALUE	20100000000000000000000000000000000000	MO AVO	307	LBS/DY	*****	*****	*****	***		MCE/ MONTH	POMPUS
NAME/TITLE PRINCIPAL EXECUTIVE	prepared	under my direction or su	this document and all attach pervision in accordance with	a system designer	ď	- /		TELEPHON	E	DA	TE
LANCE IHAKA	or those submitte	d. Based on my inquiry of persons directly responsible d is, to the best of my kno	roperly gather and evaluate f the person or persons who le for gathering the informat wledge and belief, true, accu	manage the system ion, the informationate, and complete	on le.	W				DS 1	0 10
Manger Engineerin TYPED OR PRINTED	are that there are significan	nt penalties for submitting fa imprisonment for knowing	ise information.	BIGNA	TURE OF PRINCIPAL FICER OR AUTHORIZE		A NUMBER	3	YEAR M	O DAY	

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PAGE

STAR-KIST SAMDA

ADDRESSFO BOX 368 PAGU PAGU

LOCATION PAGE PAGE

AS 96799

FACILITY STAR-KIST SAMOA TUNA CANNERY AS 96799 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

DAY

01

AS0000019 **PERMIT NUMBER**

FROM

05

MO

09

001 DISCHARGE NUMBER

MONITORING PERIOD YEAR MO DAY 30 TO 05 09

MAJOR

Form Approved. OMB No. 2040-0004

F - FINAL

DISCHARGE 001/MONTHLY

*** NO DISCHARGE | | ***

ATTN: MR. JOE CARNEY			NOTE: Read Instru	Ctions betoi	e com	pieting this	torm.					
PARAMETER		/	QL	IANTITY OR LOAD!	NG	QUAI	LITY OR CONCENTE	RATION		NO.	FREQUENCY	SAMPLE
		1	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	EX	ANALYSIS	TYPE
INC TOTAL RECOVERABLE	SAMI		****	***		*****	175	175	(58)			
1094 1 0 0 EFFLUENT GROSS VALUE	PERA REQUIRE		各等特殊等	特拉特特特特	***	*****	1545 30DA AVG	1770 DAILY MX	UG/L		NCE/ MONTH	COMPO
OPPER OTAL RECOVERABLE	SAMI		*****	*****		*****	<10	<10	(28)			
1119 1 0 0 FFLUENT GROSS VALUE	PERM	A Committee of the second	非长长 养养	- 转种特殊特殊 **	**** ****	经存货帐条	66 30DA AVG	108 DAILY MX	UG/L		NCE/ MONTH	COMPO
IL AND GREASE	SAM! MEASUR		379.3	620.0	(26)	****	*****	****				
03582 1 0 0 EFFLUENT GROSS VALUE	PERA REQUIRE		763 MD AVG	1907 DAILY MX	_BS/DY	各体技术关	茶格拉林快快	*****	***		EEKLY	RAB
LOW, IN CONDUIT OR THRU TREATMENT PLANT	SAM! MEASUR!		*****	2.017454	(03)	****	***	****				
0050 1 0 0 FFLUENT GROSS VALUE	PERM REQUIRE		基件系数条件	2. 9 DAILY MX	MGD	条件并关计器	*****	法林孙孙 恭	***		ONTIN	RCORDE
	SAME MEASURI	-										
	PERM REQUIRE	######################################										
	SAME MEASURE		A Part of the Control									
	PERM REQUIRE					Beganing grown and read relative years in equipment of the property of the second						
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	PERM REQUIRE											
AME/TITLE PRINCIPAL EXECUTIVE OFFICER			Certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed									TE
LANCE IHAKA	to assure submitted or those p	to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.									0 0	
manager biigineering		I am awai	re that there are significan	ricige and benef, true, accu t penalties for submitting fa imprisonment for knowing	tse Information,	MIGNA	TURE OF PRINCIPAL		A NUMBER		VEAD 14	O DAY
TYPED OR PRINTED					ionanous.	OFF	ICER OR AUTHORIZE	COL	E NOMBER		YEAR M	O DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

DISCHARGE MONITORING REP	ORT (DMR) Routs Slip
Facility Name STARKIST SAMOA, INC	AS0000019
MVDT-end date: 10/31/05 12/31/05	Date Received: 1/17/06
Period(s): CANOV Dec 05	QUARTERLY
SEMIANNUAL	ANNUAL
Preprinted Form Logged NOT Preprinted	Entered in PCS/Date: 2/6/06 By:
COMMENTS	Note: Parameter Code recorded by froz Mgr.

StarKist Seafood, Inc.



January 17, 2006

Mr. Carl L. Goldstein U. S. EPA Region 9 Pacific Insular Area Program (CMD-5) 75 Hawthorne Street San Francisco, CA 94105

Dr. Toafa Vaiaga'e Director, AS EPA Office of the Governor EOB Utulei, American Samoa 96799 (odes for parameters
were missing. I
used the codes from
the reporting period
Jul-Aug-SEPT 05

Program Manager CED-6

Gentlemen:

Re: <u>Discharge Monitoring Report for the Months of October, November and December of 2005,</u> under NPDES No. AS0000019 as issued to Star Kist Samoa, INC.

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of October, November and December of 2005.

Star Kist Samoa met all Effluent limits, except for the pH.

The pH exceeded the one-hour individual excurtion limit during the month of December 2095. The Team Member has been retrained and was issued a written warning for poor job performance.

Sincerely

Lance Ihaka

Manager, Engineering and Maintenance

LI \ ls : \ npdes \samoa

Attachments:

cc:

Mr. Tim Ruby, Environmental Water Manager Del Monte Foods, DMRC.

Mr. Peter Peshut Mr. Brett Butler

entred 2/14/04/5

					Max			Oil &C	Grease	T	SS	Т	Р	Т	N	Total	В	OD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff	Total
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/Day	mg/l	#/Day	mg/l	#/Day	mg/l	#/Day	Eff mg/l	mg/l	#/Day
1		0.621894	141.9	4.2	89	6.7	6.9											
2		0.981331	223.6	6.1	77	6.7	6.9											ļ
3	578.9205	1.623316	369.8	10.0	80	6.7	6.9											
4	594.4963	1.926894	378.4	9.1	80	6.8	6.9	29.1	466.3	140.7	2254.6	12.0	192.3	73.0	1169.8	12.4		
5	603.8615	1.881246	365.5	12.5	82	6.7	7.1					12.0	187.7	75.0	1173.3			
6	604.5228	1.864266	356.9	12.1	82	6.7	6.9											
7	605.5270	1.614829	361.2	11.6	83	6.7	6.9											
8		0.557090	137.6	4.0	82	6.7	6.8											
9		0.315206	90.3	0.8	80	6.9	6.9											
10	SHUT DOWN	0.277142	34.4	0.7	75	6.8	6.9											
11	SHUT DOWN	0.219594	12.9	0.2	75	6.8	6.8											
12	SHUT DOWN	0.293449	43.0	1.7	77	6.8	6.8											
13	SHUT DOWN	0.191674	17.2	0.4	72	6.8	6.8											
14	SHUT DOWN	0.220322	86.0	1.4	80	6.8	7.1											
15	SHUT DOWN	0.458478	55.9	1.6	82	7.0	7.1											
16		0.760133	159.1	5.8	82	6.8	8.7											
17	529.8510	1.391219	331.1	8.9	82	6.7	7.8											
18	518.7603	1.670867	344.0	12.4	84	6.8	7.1	71.9	999.0	186.0	2584.5	11.4	158.4	71.0	986.5	11.2	355.5	4939.6
19	559.0540	1.611155	365.5	11.2	84	6.7	7.0		,			14.9	199.6	78.0	1045.1			
20	571.3333	1.782925	464.4	11.6	83	6.7	6.9											
21	565.8150	1.431812	326.8	9.0	87	6.8	6.9											
22		0.602449	90.3	3.2	85	6.8	6.9							i				
23		0.970811	266.6	6.5	84	6.8	6.9											
24	580.6605	1.520496	382.7	10.5	85	6.7	6.9											
25	593.4100	1.791665	382.7	12.1	82	6.7	7.0											
26	593.5263	1.791740	378.4	12.2	82	6.8	6.9	13.4	199.7	144.7	2156.0	12.5	186.3	78.0	1162.2	20.9		
27	589.1208	1.883563	344.0	12.6	83	6.8	6.9					13.3	208.3	79.0	1237.4			
28	584.5883	1.600332	305.3	11.4	87	6.7	6.9											
29		0.718934	146.2	4.7	80	6.7	6.9											
30		1.052534	258.0	7.6	7 8	6.7	6.9											
31	601.3350	1.529223	369.8	10.7	82	6.8	6.9											
тот	9274.7826	35.156589	7589.5	226.8					1665.0		6995.1		1132.6		6774.3			
AVG	579.6739	1.134084	244.8	7.3	81			38.1	555.0	157.1	2331.7	12.7	188.8	75.7	1129.1	14.8	355.5	4939.6

ADDRESS

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

DAY

01

Form Approved OMB No. 2040-0004 Expires 3-31-88

MINE	STAR RIST SAMOA, IIIC
NAME	STAR KIST SAMOA, Inc.
acility Name/L	cation if different)

AS0000019 PERMIT NUMBER

P. O. BOX 368 PAGO PAGO AMERICAN SAMOA 96799

> YEAR МО FROM 2005 10

MONITORING PERIOD YEAR MO DAY 2005 10 31 TO

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: R	ead instructions before comple	ting this form.
PARAMETER		(3 Card Only) QUANT	TITY OR LOADING		(4 Card Only) QI	JALITY OR CONCENTRAT			NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
	SAMPLE	AVERAGE	MAXIMUM	UNITS	MINIMON	AVERAGE	WANIMOW	UNITS	(62-63)	(64-66)	(65-70)
50050-1-0-0			1.926894						0	Continuous	Recorder
	MEASUREMENT		1.320034	1					-	Continuous	Recorder
FLOW	PERMIT REQUIREMENT	\ \ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	2.9	mgd	,	1 1			'		
			2.5	mgu					-		
00310-1-0-0	SAMPLE	4939.6	4939.6	l .	355.5	355.5	355.5		0	Once/Month	Composite
	MEASUREMENT			-	333.3	333.3	333.3		<u> </u>	Once/wonth	Composite
2005	PERMIT	REPORT	REPORT	De a faller	N/A	NI/A	AL/A	ma er /1			
BOD5	REQUIREMENT	MO AVG	DAILY MX	lbs/day	N/A	N/A	N/A	mg/l			
00530- 1-0-0	SAMPLE	2224.7	2504.5		140.7	157.1	186.0		0	On an Marak	Composite
	MEASUREMENT	2331.7	2584.5	-	140.7	137.1	100.0		0	Once/Week	Composite
	PERMIT		7500		Alea	NI/A	1 1/4	//		n	1 J 1
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	5 N/A	mg/l			****
03582-1-00	SAMPLE		000.0		40.4	00.4	74.0				
	MEASUREMENT	555.0	999.0	1	13.4	38.1	71.9		0	Once/Week	Grab (2)
	PERMIT			l		19/		_		4	
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A ;	N/A	N/A	mg/l		" "	· • • • • • • • • • • • • • • • • • • •
00665 1000	SAMPLE										
- 003 (301-	MEASUREMENT	188.8	208.3	1	11.4	12.7	14.9		0	One Set/Month (3)	Composite
[]	PERMIT		16 V		4.7	A h					\$4. Pr
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l	100	" "	i i n'
0-610-1-0-0	SAMPLE										
60600	MEASUREMENT	1129.1	1237.4		71.0	75.7	79.0		0	One Set/Month (3)	Composite
	PERMIT	1 1 1 1 1 1 1 1 1				14					49
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l	1		
00610 - 1.00	SAMPLE										
1000	MEASUREMENT				11.2	14.8	20.9		0	Once/Week	Composite
	PERMIT	5.7	1 / N		1	h					Six 1
TOTAL AMMONIA	REQUIREMENT	179g	٠ .		N/A	N/A	133	mg/l		11 11	**.
NAME / TITLE PRINCIPAL EXECUTIVE OF	FICER				E PERSONALLY EX				TE	LEPHONE DATE	
					MITTED HEREIN AN						
					IATELY RESPONSIB SUBMITTED INFORM						
		1			RE THAT THERE AR						
					NFORMATION INCLU						
LANCE IHAKA		1			SEE 18 U.S.C. 1001 A						
Manager, Engineering and M	Maintenance	33 U.S.C. 1319 (<i>Pe</i>	nalties under these	statutes ma	y include fines up to	\$10,000	SIGNATURE OF PRINCIPAL EX	ECUTIVE	AREA		
TYPE OR PRINTED		and or maximum in	nprisonment of be	tween 6 mon	th and 5 years)		OFFICER OR AUTHORIZED AG	ENT	CODE	NUMBER YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR) (2-16) (17-19) Form Approved
OMB No. 2040-0004
Expires 3-31-88

 NAME
 STAR KIST SAMOA, Inc

 ADDRESS
 P. O. BOX 368

 PAGO PAGO AMERICAN SAMOA 96799

(2-16)
AS0000019
PERMIT NUMBER

001 DISCHARGE NUMBER

FACILITY LOCATION
 MONITORING PERIOD

 YEAR
 MO
 DAY
 YEAR
 MO
 DAY

 2005
 10
 01
 TO
 2005
 10
 31

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE: R	ead instructions before complet	ing this form.
PARAMETER		(3 Card Only) QUANTITY O	RLOADING		(4 Card Only) QU	ALITY OR CONCENTRAT	ION		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
00011 - 1,000	SAMPLE	AVERAGE	MIAAMONI	011110	I I I I I I I I I I I I I I I I I I I	AVERAGE	III/AAIII/OIII		(02-00)	(04 00)	(00-10)
60011 - 17030	MEASUREMENT					81	89		0	Continuous	Continuous
	PERMIT				1.]				
TEMPERATURE	REQUIREMENT				S. C.	90	95	°F		<u> </u>	н.
00400 - 1.00	SAMPLE										
	MEASUREMENT				6.7		8.7]	0	Continuous	Continuous
	PERMIT	7.5			To Asia		1 T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
рН	REQUIREMENT		1. 1.		6.5	2 2	8.6	STD/UNITS	75.3	(- fr • 1
01119-1-00	SAMPLE										
	MEASUREMENT					16	16		0	Once/Month	Composite
	PERMIT	2	124		7	g - 1					
TOTAL COPPER	REQUIREMENT	Table 17 mg			fel f	66	108	μg/L			+ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
01094 - 1-0-0	SAMPLE		-								
01074 = 100 0	MEASUREMENT					1030	1030	_	0	Once/Month	Composite
	PERMIT]			3.51			A C	[A] (W
TOTAL ZINC	REQUIREMENT		tt		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1545	1770	μg/L	.27		H
	SAMPLE										
	MEASUREMENT										
	PERMIT				, Y		1.				
	REQUIREMENT				4.5	A 5.	2-5				
	SAMPLE										
	MEASUREMENT								_		
	PERMIT				\$ N	1.0	1]		(2)	
	REQUIREMENT	.4				\$ 10 m			152		
	SAMPLE										
!	MEASUREMENT										
	PERMIT	1	75.	1	14.7			1			J. 14
	REQUIREMENT		i i i		3/4		1.0	1			
NAME/TITLE PRINCIPAL EXECUTIVE	OFFICEB/	-			VE PERSONALLY EXA				TE	LEPHONE DATE	
	25				BMITTED HEREIN ANI						
رسي:		1			DIATELY RESPONSIBI SUBMITTED INFORMA						
1		1			ARE THAT THERE AR						
1 37					INFORMATION INCLU						
LANCÉ IHAKA		THE POSSIBILITY	OF FINE AND IMPR	ISONMENT	SEE 18 U.S.C. 1001 A	ND					
Manager, Engineering and Maint	tenance	-			ay include fines up to	\$10,000	SIGNATURE OF PRINCIPAL E		AREA		
TYPE OR PRINTED		and or maximum in	nprisonment of bet	ween 6 moi	nth and 5 years)		OFFICER OR AUTHORIZED A	GENT	CODE	NUMBER YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

We had one (1) pH reading which was above 8.6 for thirty minutes through out the month. We did not exceed the one hour individual excurtion limit. This is not considered a violation.

					Max	3		Oil &	Grease	Т	ss		Ъ	т	N	Total	В	BOD
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff	Total
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/Day	mg/l	#/Day	mg/l	#/Day	mg/l	#/Day	Eff mg/l	mg/l	#/Day
1	584.0263	1.765820	391.3	11.8	83	6.7	6.9											
2	599.0230	1.801942	421.4	11.8	82	6.7	6.9	75.4	1129.9	224.7	3367.1	12.1	181.3	89.0	1333.7	18.3		
3	595.3460	1.780093	395.6	12.5	84	6.7	6.9	i				11.2	165.8	83.0	1228.7			
4	582.5188	1.409808	335.4	9.1	84	6.7	6.9											
5		0.742864	159.1	2.7	80	6.8	6.9											
6		1.166817	219.3	6.6	77	6.8	6.9											
7	606.3690	1.792096	374.1	12.0	82	6.8	7.0											
8	596.1220	1.890918	374.1	13.4	82	6.7	7.0	6.4	100.6	67.3	1058.3	10.1	158.8	77.0	1210.8	13.7	306.4	4818.1
9	589.9373	1.829913	447.2	12.4	83	6.7	6.9					11.1	168.9	84.0	1278.3			
10	578.9510	2.012903	399.9	13.0	84	6.7	6.9											
11	583.6385	1.910906	322.5	11.6	84	6.7	6.9											
12		0.540363	103.2	2.8	85	6.8	6.9											
13		1.025580	262.3	6.5	76	6.7	6.9											
14	592.2655	1.671224	361.2	10.5	82	6.8	7.0											
15	596.8868	1.892605	412.8	12.5	84	6.8	7.0											
16	595.7238	1.868743	434.3	11.2	84	6.7	7.4	27.4	425.8	176.0	2735.1	12.5	194.3	61.0	948.0	23.3		
17	566.4920	1.915068	395.6	12.1	85	6.7	6.9					11.6	184.7	45.0	716.7			
18	565.1145	1.617223	339.7	10.0	87	6.7	7.0											
19		0.582139	116.1	2.4	84	6.8	6.8											
20		1.089616	266.6	8.4	78	6.7	6.9											İ
21	561.7190	1.785483	365.5	12.0	83	6.7	6.9											
22	562.2218	1.891070	387.0	12.7	84	6.8	7.0	19.5	306.7	82.0	1289.5	10.1	158.8	77.0	1210.9	24.4		
23	554.8240	1.525635	399.9	11.1	87	6.7	7.0					10.0	126.9	76.0	964.2			
24		0.510027	159.1	4.8	85	6.7	6.8											
25		0.257370	12.9	0.9	76	6.8	6.9											
26		0.438721	43.0	1.2	84	6.7	6.8											
27		1.112557	141.9	4.1	83	6.7	6.9											
28	584.6608	1.550129	292.4	8.7	88	6.7	6.9											
29	571.6470	2.109197	425.7	11.7	82	6.7	7.4	37.7	661.3	161.3	2829.2	8.7	152.6	74.0	1298.0	24.2		
30	595.9213	1.958144	395.6	12.3	83	6.7	7.4					9.9	161.2	80.0	1302.7			
TOT	11663.4084	43.444974	9154.7	272.8					2624.3		11279.2		1653.3		11492.0			
AVG	583.1704	1.448166	305.2	9.1	83			33.3	524.9	142.3	2255.8	10.7	165.3	74.6	1149.2	20.8	306.4	4818.1

Facility Name/Location if different)

FACILITY

LOCATION

NAME STAR KIST SAMOA, Inc.

ADDRESS P. O. BOX 368 PAGO PAGO AMERICAN SAMOA 96799 NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

(17-19)

AS0000019 PERMIT NUMBER

001 DISCHARGE NUMBER

MONITORING PERIOD YEAR МО DAY YEAR МО DAY 2005 11 01 2005 11 30 FROM TO (22-23) (24-25) (26-27) (28-29) (30-31)

LOCATION			-	TROM	(20-21) (22-23)		(26-27) (28-29)	(30-31)	ا ا	ead instructions before complete	ng thin form
PARAMETER		/3 Card Only: QUANTIT	TY OR LOADING			(24-25) UALITY OR CONCENT		(30-31)	NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
192 3.7		30-DAY	DAILY	I	100 13/	30-DAY	DAILY		1		
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
50050 1.00	SAMPLE										
300.70 (.0.0	MEASUREMENT		2.109197						0	Continuous	Recorder
	PERMIT	7.5				,					
FLOW	REQUIREMENT	4	2.9	mgd	All Helman		1.5			U	e
00310 1-0.0	SAMPLE										
00310 1-0.0	MEASUREMENT	4818.1	4818.1		306.4	306.4	306.4		0	Once/Month	Composite
	PERMIT	REPORT	REPORT		3.1				1.7		
BOD5	REQUIREMENT	MO AVG	DAILY MX	lbs/day	N/A	N/A	N/A	mg/l		н и	**
	SAMPLE									, mi	
06530 1-0-0	MEASUREMENT	2255.8	3367.1		67.3	142.3	224.7		1 0	Once/Week	Composite
	PERMIT										
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l			
	SAMPLE	1 200							1		
53582 1-0-0	MEASUREMENT	524.9	1129.9		6.4	33.3	75.4		0	Once/Week	Grab (2)
	PERMIT	024.0	1120.0		0.4	00.0	70.1		<u> </u>	7,4	(2)
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l			
	SAMPLE	703	.g. 1907	ibs/ day	N/A	19/0	N/A	nig/i			'
00665 1-0-0	MEASUREMENT	165.3	194.3		8.7	10.7	12.5		0	One Set/Month (3)	Composite
,	PERMIT	100.0	194.5		0.7	10.7	12.5			One Septimonti (3)	Composite
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l			· · · · · · · · · · · · · · · · · · ·
	SAMPLE	132	309	ibs/uay	IVA	N/A	N/A	nig/i	<u> </u>		
00600 1-0-0		1149.2	1333.7		45.0	74.6	89.0		0	One Set/Month (3)	
	MEASUREMENT	1149.2	1333.7	1	45.0	74.0	09.0		-	One Set/Worth (3)	
TOTAL NITROGEN	PERMIT	4200	2100	Iba/day	N/A	N/A	N/A	ma/l	1	, A (A)	, H
	REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l	<u> </u>	1,3,1	5
00610 1-0 V	SAMPLE				13.7	20.8	24.4		0	0	C
,	MEASUREMENT				13.7	20.8	24.4		-0	Once/Week	Composite
TOTAL 444401114	PERMIT				AL/A	A1/A	422		, a		
TOTAL AMMONIA	REQUIREMENT	LOEDTIEV LINE	D DENIAL TV OF L	A)44 771 A T 1	N/A	N/A	133	mg/l	<u> </u>		
NAME / TITLE PRINCIPAL EXECUTIVE OFF	ICER				HAVE PERSONAL SUBMITTED HERE				TE	LEPHONE DATE	
	1971				MEDIATELY RESP						
_					HE SUBMITTED IN						
//					AWARE THAT THE						
//					SE INFORMATION						
LANCE IHAKA					ENT SEE 18 U.S.C.						
Manager, Engineering and Ma	intenance	٠,			s may include fines	•	SIGNATURE OF PRINCIPAL EX		AREA		
TYPE OR PRINTED	NV VIOLATIONS (D-f-	and or maximum	imprisonment of	between 6	month and 5 years	<u>/</u>	OFFICER OR AUTHORIZED AG	BENT	CODE	NUMBER YEAR	MO DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

Form Approved

OMB No. 2040-0004

Expires 3-31-88

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

Facility Name/Location if different)

 NAME
 STAR KIST SAMOA, Inc

 ADDRESS
 P. O. BOX 368

 PAGO PAGO AMERICAN SAMOA 96799

AS000019 PERMIT NUMBER (17-19)
001
DISCHARGE NUMBER

FACILITY LOCATION

MONITORING PERIOD DAY YEAR MQ YEAR MO DAY 2005 05 2005 11 30 11 TO FROM (20-21) (22-23) (24-25) (26-27) (28-29) (30-31)

LOCATION			-		(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	J NOTE: D	ead instructions before comple	ating this form
PARAMETER		(3 Card Only) QUANTI	TY OR LOADING			ALITY OR CONCENTE		(30-37)	NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY AVERAGE	DAILY MAXIMUM	UNITS	MINIMUM	30-DAY AVERAGE	DAILY MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
000114 - 1.00	SAMPLE MEASUREMENT					83	87		0	Continuous	Continuous
TEMPERATURE	PERMIT REQUIREMENT					90	95	°F			· · · · · · · · · · · · · · · · · · ·
	SAMPLE			-		. 30	1 33	<u>'</u>			
x0400 1-00	MEASUREMENT				6.7		7.4		0	Continuous	Continuous
рН	PERMIT REQUIREMENT				6.5	No. 1	8.6	STD/UNITS			
1119 1-00	SAMPLE MEASUREMENT					<10	<10		0	Once/Month	Composite
	PERMIT	W		1						Once/Month	Composite
TOTAL COPPER	REQUIREMENT					66	108	μg/L		" 3 4" 3	1 3 w
01094 1-00	SAMPLE MEASUREMENT					179.0	179.0		0	Once/Month	Composite
	PERMIT									e Y	
TOTAL ZINC	REQUIREMENT		<u> </u>			1545	1770	μg/L	1.54	2 " " "	Ht .
	SAMPLE MEASUREMENT										
	PERMIT					No.	4 1	1			Q.
	REQUIREMENT	.A			X		<u> </u>				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT							1			5. SA
	SAMPLE										
	MEASUREMENT						<u> </u>	4	<u> </u>		
	PERMIT REQUIREMENT							-			
NAME/TITLE PRINCIPAL EXECUTIVE		I CERTIFY UNDE	R PENALTY OF L	AW THAT	I HAVE PERSONAL	LY EXAMINED		-1	TE	LEPHONE DATE	
		ON MY INQUIRY	OF THOSE INDIV	VIDUALS II	N SUBMITTED HERE MMEDIATELY RESP THE SUBMITTED IN	ONSIBLE FOR					
<u></u>		,			I AWARE THAT THE						
LANCE IHAKA		THE POSSIBILIT	Y OF FINE AND I	MPRISON	MENT SEE 18 U.S.C.	1001 AND			AREA		
Manager, Engineering and Main TYPE OR PRINTED	tenance				es may include fines 5 month and 5 years		SIGNATURE OF PRINCIPAL E		CODE	NUMBER YEAR	MO DAY
TIPE OR PRINTED		and of maximum	piisoimient oi	201110011	und o years		TOTAL ON AUTHORIZED A		0002	TOTAL TEAK	L DAT

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

					Max			Oil &0	Grease	T	SS	Т	Ъ	7	N.	Total	В	O D
	Production	Flow	Alum	Poly	Temp	pH L	imits	Eff	Total	Eff	Total	Eff	Total	Eff	Total	Ammonia	Eff	Total
Date	Tons	mgd	#/day	#/day	F	Lo	Hi	mg/l	#/Day	mg/l	#/Day	mg/l	#/Day	mg/l	#/Day	Eff mg/l	mg/l	#/Day
1	556.4233	1.947108	374.1	11.8	84	6.7	6.9											
2	565.7995	1.582383	352.6	10.2	85	6.7	6.9											
3		0.666330	124.7	3.2	88	6.8	6.9											
4		1.145460	262.3	8.2	77	6.8	6.9											
5	512.6723	1.869609	421.4	10.6	84	6.8	7.2											
6	514.8930	1.892398	451.5	12.7	86	6.7	7.0	43.7	687.7	202.7	3189.9	12.6	198.3	75.0	1180.3	31.2	193.4	3043.6
7	516.2785	2.040614	460.1	13.5	86	6.7	6.9					9.8	166.3	65.0	1103.0			
8	522.7408	1.973795	387.0	11.6	84	6.7	7.0											
9	528.6858	1.229880	339.7	10.0	85	6.8	7.0											
10		0.654317	159.1	4.4	80	6.8	7.1											
11		1.308431	301.0	9.5	78	6.8	6.9											
12	470.6458	1.846189	404.2	11.6	77	6.7	6.8											
13	473.7608	1.669800	425.7	10.6	77	6.7	6.9											
14	558.5018	1.758291	412.8	11.8	82	6.5	6.9	62.8	918.3	230.7	3373.3	11.5	168.2	71.0	1038.2	28.0		
15	569.1205	2.044758	391.3	10.2	84	6.4	6.8					12.0	204.1	54.0	918.2			
16	581.0693	1.713945	335.4	11.1	88	6.8	6.9											
17		0.797672	137.6	3.3	84	6.8	6.8											
18		1.058944	184.9	6.4	76	6.8	6.9											
19	589.8715	1.890273	421.4	12.0	85	6.7	6.9											
20	583.5023	1.864266	399.9	13.0	85	6.8	6.9	12.3	190.7	154.0	2387.5	12.6	195.3	79.0	1224.8	15.5		
21	575.4948	1.731098	387.0	12.0	84	6.8	6.9					11.2	161.2	92.0	1324.4			
22	516.9415	1.477761	335.4	10.9	90	6.7	6.9											
23	SHUT DOWN	0.578074	94.6	2.6	84	6.8	6.9											
24	SHUT DOWN	0.351234	103.2	2.9	83	6.7	6.9											
25	SHUT DOWN	0.292906	43.0	2.4	82	6.7	6.8											
26	SHUT DOWN	0.410421	103.2	3.4	80	6.8	6.9											
27	SHUT DOWN	0.359867	98.9	2.9	80	6.7	6.9											
28	SHUT DOWN	0.355433	77.4	2.0	78	6.7	6.8											
29	SHUT DOWN	0.274212	43.0	1.9	79	6.7	6.7											
30	SHUT DOWN	0.356337	55.9	1.9	78	6.7	6.8											
31	SHUT DOWN	0.455081	103.2	3.6	80	6.7	6.7		1									T
тот	8636.4015	37.596887	8191.5	242.2					1796.7		8950.7		1093.4		6788.9			
AVG	539.7751	1.212803	264.2	7.8	82			39.6	598.9	195.8	2983.6	11.6	182.2	72.7	1131.5	24.9	193.4	3043.6

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004 Expires 3-31-88

Facility Name/Location if different) NAME

FACILITY

LOCATION

STAR KIST SAMOA, Inc ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

AS0000019 PERMIT NUMBER

001 DISCHARGE NUMBER

МО

12

DAY

(17-19)

MONITORING PERIOD YEAR MO DAY YEAR FROM 2005 12 01 TO 2005 (24-25)

31 (30-31) NOTE: Read instructions before completing this form.

					(20-21) (22-23)	(24-25)	(26-27) (28-29)	(30-31)	NOTE. K	ead instructions before complet	ing this form.
PARAMETER		(3 Card OnlY) QUANT	TY OR LOADING		(4 Card Only) QUAL	ITY OR CONCENTR	ATION		NO.	FREQUENCY	SAMPLE
(32-37)		(46-53)	(54-61)		(38-45)	(46-53)	(54-61)		EX	OF ANALYSIS	TYPE
		30-DAY	DAILY			30-DAY	DAILY		1		
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	(62-63)	(64-68)	(69-70)
50050 1-00	SAMPLE										
, , , ,	MEASUREMENT		2.044758						0	Continuous	Recorder
	PERMIT	2		1							4. 75
FLOW	REQUIREMENT		2.9	mgd					1.5	•	•
	SAMPLE					14.44					, i.u.
00310 1.000	MEASUREMENT	3043.6	3043.6		193.4	193.4	193.4		1 0	Once/Month	Composite
	PERMIT	REPORT	REPORT	1						4 V - 1	
BOD5	REQUIREMENT	MO AVG	DAILY MX	lbs/day	N/A	N/A	N/A	mg/l		n	. *
		WO AVG	DAIL! IVIA	ibsiday	11//	. 11/6	11//	mg/i		2.4	
00530 1.0.0	SAMPLE	2002.0	2272.0		154.0	105.0	220.7			0	0
•	MEASUREMENT	2983.6	3373.3	1	154.0	195.8	230.7		0	Once/Week	Composite
	PERMIT			l					1.		
TSS	REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l_		" "	
03582 1-0-0	SAMPLE										
	MEASUREMENT	598.9	918.3		12.3	39.6	62.8		0	Once/Week	Grab (2)
	PERMIT	4.5	January Communication		198		,		- 21		***
OIL & GREASE	REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l		n	н о
00665 1-0-0	SAMPLE										
(2000	MEASUREMENT	182.2	204.1		9.8	11.6	12.6		0	One Set/Month (3)	Composite
	PERMIT	4	17	1						42 70	1.3
TOTAL PHOSPHORUS	REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l	1.7		o ";
	SAMPLE			, , , , ,							
00600 1-00	MEASUREMENT	1131.5	1324.4		54.0	72.7	92.0		0	One Set/Month (3)	Composite
	PERMIT	1101.0	1021.1	1	01.0		02.0				132
TOTAL NITROGEN	REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l			•
		1,200	2100	ibsiday	14/6	IV/A	11/7	mg/i	+		'n
00610 1-00	SAMPLE				15.5	24.0	24.0				0
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	PERMIT		11 A			1	1 30 31		1.		
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COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

NAME	STAR KIST SAMOA, Inc	
ADDRESS	P. O. BOX 368	
	PAGO PAGO AMERICAN SAMOA 96799	

(2-16)
AS0000019
PERMIT NUMBER

(17-19) 001 DISCHARGE NUMBER

				MON	TORING	PERIOD		
CILITY:		YEAR	MO	DAY		YEAR	MO	DAY
OCATION:	FROM	2005	12	01	TO	2005	12	31
		(00.04)	(00.00)	(0.6.05)		(00.07)	(20, 20)	(20.24)

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00400 1-00	SAMPLE MEASUREMENT				6.4		7.2		1	Contin	uous	Conti	nuous
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COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

UNTIL SUPPLY IS EXHAUSTED.

We had a pH of 6.4 which was below the limit. The pH exceeded the one-hour individual excurtion limit during the month of December. The pH were corrected immediately upon detection. The team member has been retrained and was issued a written warning for poor job performance.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 9

75 Hawthorne Street San Francisco, CA 94105-3901

APR 2 9 1997

Mr. Norman Wei Corporate Environmental Manager StarKist Foods, Inc. 1054 Ways Street Terminal Island, CA 90731

Mr. James L. Cox Director of Engineering and Environmental Affairs Van Camp Seafood Company, Inc. 4510 Executive Drive, Suite 300 San Diego, CA 92121-3029

Re: Submittal of NPDES Permit Renewal Applications for StarKist Samoa, Inc.(AS0000019) and VCS Samoa Packing Company (AS0000027)

Dear Mr. Wei and Mr. Cox:

Your request to submit the National Pollutant Discharge Elimination System (NPDES) permit renewal applications for StarKist Samoa, Inc. and VCS Samoa Packing Company at a date later than 180 days prior to the expiration date of these permits is granted, pursuant to 40 CFR 122.21(d). Please submit the applications to this office by May 30, 1997.

As discussed with Steve Costa, your consultant, and my staff, the reason for the request for delay in submittal of the applications is the pending sale of Van Camp Seafood Company, Inc. The company is filing a voluntary petition under Chapter 11 of the U.S. Bankruptcy Code, and financial arrangements are being made with the company's contractors, vendors and suppliers to insure continued payment. Since Dr. Costa is a sub-contractor to CH2MHill, hired by the canneries to prepare the permit applications, the reorganization of Samoa Packing has temporarily delayed his preparation of the applications. It is anticipated that these financial arrangements will be resolved in a few weeks.

We look forward to receiving the renewal applications at the end of May. Should you have any questions, please contact Pat Young, American Samoa Program Manager at 415/744-1594 or Doug Liden, Permit Writer at 415/744-1920.

Sincerely,

Acting Director
Water Division

cc: Norman Wei, StarKist Foods, Inc.

James Cox, Van Camp Seafood Company, Inc. Togipa Tausaga, ASEPA, American Samoa Barry Mills, StarKist Samoa, American Samoa

William D. Perez, VCS Samoa Packing Company, American Samoa

Karin, Noack, CH2M Hill



6 June 1997

Sheila Wiegman American Samoa Environmental Protection Agency American Samoa Government Pago Pago, American Samoa 96799

Dear Ms Wiegman:

Re: Application for Water Quality Certification and Zones of Mixing for the Joint Cannery Outfall operated by:
StarKist Samoa (NPDES Permit AS0000019), and VCS Samoa Packing (NPDES Permit AS0000027)

This letter is an application for Water Quality Certification, and Zones of Mixing (ZOMs) for certain constituents, of the treated wastewater discharge from StarKist Samoa and VCS Samoa Packing (the canneries) through the Joint Cannery Outfall (JCO) into the Outer Harbor portion of Pago Pago Harbor. It is noted that the outfall design and configuration, discharge point, and characteristics of the treated wastewater have not changed since the issuance of the existing Water Quality Certificate. There are existing ZOMs for total nitrogen (TN), total phosphorous (TP), and ammonia. Studies over the period of the existing NPDES permits have indicated the need and justification for ZOMs for copper and zinc.

Application for the renewal of existing ZOMs and establishment of additional ZOMs, as indicated above, is made pursuant to section 24.0208 of the American Samoa Water Quality Standards (ASWQS), 1989 Revision. This application is being submitted in conjunction with the renewal of the NPDES permits for the canneries, which expire 27 October 1997. Please be advised that the submittal date for renewal of the NPDES permits was delayed by 30 days by USEPA for reasons associated with the recent sale of VCS Samoa Packing and the resultant need to re-establish contractual agreements between Samoa Packing and its consultant CH2M HILL. The applications for renewal of the NPDES permits by both of the canneries have been submitted to USEPA.

StarKist Samoa and VCS Samoa Packing are herein applying for the following zones of mixing:

- (1) Renewal of the ZOM previously established for TN.
- (2) Renewal of the ZOM previously established for TP
- (3) Renewal of the ZOM previously established for ammonia
- (4) Establishment of a ZOM for copper
- (5) Establishment of a ZOM for zinc

All documentation describing the existing ZOMs, and the supporting information required by the ASWQS, was submitted during the initial applications. There have been no changes in the conditions previously described. In addition, various studies conducted over the past five years have shown no deleterious effects or violations of water quality standards related to the existing ZOMs. The studies have clearly indicated that the water quality standards are met at the edges of the ZOMs as required. Reports of all of the studies completed to date have been submitted to ASEPA. We believe that no additional material is needed to describe or justify the continuation of the existing ZOMs in the same geometry and size currently permitted.

During studies required under the NPDES permits, results of which have been previously submitted to ASEPA, levels of copper and zinc exceeding water quality criteria were detected in the treated wastewater effluent from both canneries. At the request of USEPA, a supplementary source identification study was conducted at VCS Samoa Packing (results of the study were previously supplied to ASEPA). The results of this study indicated that the source of zinc is attributable to leaching from the galvanized equipment used in the cannery and at dockside for the handing of fish. The source of copper is less well understood but appears to be associated with copper, brass, and bronze fittings and equipment and may also be associated with condenser materials and operation.

The use of zinc and copper is ubiquitous and unavoidable in machinery, plumbing, and equipment, particularly in a marine dominated environment. Substitution of other materials at the scales of use in the canneries is not practicable. Therefore, the canneries are hereby applying for ZOMs for both zinc and copper. A ZOM for each of these constituents geometrically similar to that previously established for ammonia is requested. The ZOM established for ammonia is consistent with a dilution of 80:1 in the receiving water which occurs within approximately 12 meters from each of the discharge ports of the existing diffuser.

All technical information regarding the diffuser operation and performance was submitted to ASEPA during the process of establishment of the currently existing ZOMs, including the existing ZOM for ammonia. The only additional information required are descriptions of the expected zinc and copper concentrations, in the receiving water, in the effluent, and at the edge of the ZOM under the appropriate dilution characteristics. These data are provided below for both zinc and copper.

Zinc and copper in the receiving water (background) have been measured during three water quality monitoring sampling campaigns (March 1996, October 1996, and March 1997). The results of the first two campaigns have been previously documented in reports submitted to USEPA and ASEPA. The results of the third, and most recent, field data collection is currently being prepared for submittal. However, the laboratory data for zinc and copper are available and are included in the discussion below. Receiving water samples were collected in the following Pago Pago Harbor locations:

- In the "Inner Harbor" which is distant from the discharge site, influenced by other potentials sources of zinc and copper, and in the area of poorest flushing and circulation in the harbor (Stations 11 and 13)
- Outside the harbor mouth ("Transition Zone") in an area that represents the condition for near coastal waters adjacent to the mouth of the harbor (Stations 5 and 5A)
- On the boundary of the existing mixing zone established for TN and TP which represents conditions of the receiving water into which the discharge is being diluted (Stations 15, 16, and 18)

The results of all three data sets, at each of the stations listed above, are summarized in Attachment I. Based on these data, an ambient receiving water (background) zinc concentration of $<20 \,\mu\text{g/l}$ and an ambient copper concentration (in the vicinity of the discharge) of $<0.5 \,\mu\text{g/l}$ are appropriate for determination of mixing zone size.

Zinc and copper have been measured in the effluent of each cannery during the semi-annual effluent monitoring. Nine sets of data have been collected, eight of which have been reported to ASEPA. Results from the ninth sampling, done in March 1997, have been received from the laboratory, and the report to ASEPA and USEPA is currently being prepared. The data from all nine sampling episodes are summarized in Attachment II. Based on the data listed and the calculations summarized in Attachment II, the following maximum expected effluent concentrations were determined to assess the mixing zone requirements:

- For zinc the expected maxima are 324, 1254, and 513 µg/l for StarKist Samoa, VCS Samoa Packing, and the combined JCO discharge, respectively. Note that these values are considerably higher than the reported maxima. The expected values are based on the statistical approach referenced in Attachment II, and are used to determine a "worst case" for sizing the mixing zone. It should also be noted that the October 1993 samples were reanalyzed for a number of constituents, including zinc, and the results of the reanalysis are included in the calculations shown in the attachment.
- For copper the expected maxima are 35, 55, and 36 µg/l for StarKist Samoa, VCS Samoa Packing, and the combined JCO discharge, respectively. Note that these values are also considerably higher than the reported maxima, except for the VCS Samoa Packing reported maximum of 54 µg/l. The reported maxima for VCS Samoa Packing was not used in the calculation of the expected maximum value listed above since it appears (based on inspection) to be an outlier that would substantially bias the expected maximum value. As in the case of zinc described above, the expected values are based on the statistical approach referenced in Attachment II, and are used to determine a "worst case" for sizing the mixing zone. For some samples, copper was not detected and, except for the March 1996 sample,

the concentrations used in the calculations was assumed to be the detection limit reported. The detection limit during March 1996 was considered abnormally high, and an alternative laboratory has since been selected and used for the semi-annual analyses.

The concentrations in the VCS Samoa Packing effluent are generally higher because much of the zinc (and possibly copper as well) is introduced during the thawing process and VCS Samoa Packing uses a recycled thaw water process stream rather than a once through thaw water process stream as done by StarKist Samoa.

Using the information described above for background (ambient receiving water) and effluent concentrations, the dilution required to meet water quality criteria can be calculated as follows:

$$D_R = (C_E - C_A)/(C_S - C_A)$$

where:

 D_R is the dilution required to reduce the concentration (C_E) to C_S

C_E is the effluent concentration

C_s is the concentration desired (water quality criteria or standard)

C_A is the ambient receiving water (or background) concentration.

Using the water quality criteria for zinc (84 μ g/l) and copper (2.9 μ g/l), the plots of required dilution versus effluent concentration shown in Attachment III were generated. Dilutions of 20:1 to 25:1 will be sufficient to reduce the maximum measured concentrations (exhibited by the VCS Samoa Packing samples). Under the range of design flow conditions, and worst case environmental conditions, dilutions of 25:1 are achieved in a distance of approximately 4 to 6 meters from the discharge ports of the diffuser. The dilution predictions are based on the technical information provided in the support information previously submitted to ASEPA during the definition of the currently existing ZOMs. It is noted that these predictions were substantiated by dye studies and water quality monitoring.

In support of the requested zones of mixing described above, the following points have been considered:

The ZOMs are required for the continued operation of the canneries and such operation is in the public interest.

The establishment of the ZOMs does not endanger human health or safety, and it is noted that the discharge is located at a depth of 176 feet in the outer portion of the harbor.

Compliance with the existing water quality standards at the point of discharge is not practicable and such compliance would prevent the canneries from operating.

There will be no effect on marine ecology of the receiving waters outside of the mixing zones by defining the requested ZOMs. It is noted that maximum exposure time of an organism entrained into the discharge plume is predicted to be less than 10 to 12 seconds.

Complete and detailed descriptions of the present conditions in Pago Pago Harbor, the comparison of those conditions to the ASWQS, and the concentrations of constituents proposed for discharge into the requested mixing zones, have been previously submitted to ASEPA with the original application for the existing ZOMs, in this application as described above, and/or in the various reports required under that NPDES permits for the canneries which have been submitted to ASEPA over the past five years.

If any additional information is required or if you or your staff have any comments, concerns, or questions, please call or fax me at the numbers provided below.

Phone: (707) 826-0717 or 826-7662

Fax: (707)822-0567

email: glatzeldacosta@sprintmail.com

Thank you for your time and attention to this matter,

Sincerely,

Steven L. Costa, Ph.D.

cc: Norman Wei, StarKist Foods
Barry Mills, StarKist Samoa
James Cox, Van Camp Seafoods
Herman Gebauer, VCS Samoa Packing
Pat Young, USEPA-Region 9
Doug Liden, USEPA-Region 9
Topiga Tausaga, ASEPA
Karin Noack, CH2M HILL
David Wilson, CH2M HILL

This letter constitutes an application for zones of mixing and any required water quality certification by American Samoa Environmental Protection Agency and American Samoa Environmental Quality Commission for discharge through the Joint Cannery Outfall in Pago Pago Harbor, American Samoa, by VCS Samoa Packing Company, Inc.

James Cox, Director, Engineering and Environmental Affairs Van Camp Seafood Company, Inc.

This letter constitutes an application for zones of mixing and any required water quality certification by American Samoa Environmental Protection Agency and American Samoa Environmental Quality Commission for discharge through the Joint Cannery Outfall in Pago Pago Harbor, American Samoa, by StarKist Samoa, Inc.

Norman Wei, Senior Manager, Environmental Engineering StarKist Foods, Inc.

ATTACHMENT I

Receiving Water Zn and Cu Concentrations

	Pa		c and Copper ceiving Harbo	•		ng	
Station	Depth ¹ (feet)	Zinc C	oncentration Sampling Tin	(μg/l) ²	Copper	Concentration Sampling Tin	
		March 1996	November 1996	March 1997	March 1996	November 1996	March 1997
			Transition Z	one Samples			
5	30	<20	<20	<40	<25	<2	<0.5
	120	<20	<20	<40	<25	<2	<0.5
	142, 240, 160	<20	<20	<40	<25	<2	<0.5
5A	30	<20	<20	<40	<25	<2	< 0.5
	120	<20	<20	<40	<25	<2	< 0.5
	155, 220, 160	<20	<20	<40	<25	<2	<0.5
			Inner Harb	or Samples			
11	30	<20	<20	<40	<25	<2	< 0.5
	120	<20	<20	<40	<25	<2	< 0.5
	160, 164, 154	<20	<20	<40	<25	<2	1.0
13	3	<20	<20	<40	<25	<2	<0.5
	31, 29, 30	<20	<20	<40	<25	<2	0.9
		TN a	nd TP ZOM	Boundary Sa	mples		
15	3	<20	-	-	<25	-	< 0.5
	30	<20	<20	<40	<25	<2	< 0.5
	60	-	<20	-	_	<2	-
	50	-	-	<40	-	-	< 0.5
	64, 92, 90	<20	<20	<40	<25	<2	< 0.5
16	30	<20	<20	<40	<25	<2	< 0.5
	60	<20	<20	<40	<25	<2	< 0.5
	197, 193, 190	<20	<20	<40	<25	<2	< 0.5
18	30	<20	<20	<40	<25	<2	< 0.5
	60	<20	<20	<40	<25	<2	< 0.5
	194, 192, 188	<20	<20	<40	<25	<2	< 0.5

¹ Near bottom samples were collected within about ten feet of the bottom depths shown for each station for the three sampling times, respectively.

DL = 0.5

² The less than symbol (<) indicates concentration below the reporting limit as shown.

ATTACHMENT II Effluent Zn and Cu Concentrations

Zinc and Copper Analysis Results StarKist Samoa and Samoa Packing Effluent Monitoring									
Sample	StarKist Samoa Sample			VCS Samoa Packing Sample			Combined Sample ⁶		
	Zinc (µg/l)	Copper (µg/l)	Flow (mgd)	Zinc (µg/l)	Copper (µg/l)	Flow (mgd)	Zinc (µg/l)	Copper (µg/l)	Flow (mgd)
Feb 1993	92	<10	1.20	380	21	0.84	211	15	2.04
Oct 93	130	<10	1.43	400	<10	0.66	215	10	2.09
Oct 931	180	-	1.43	540	-	0.66	294	-	2.09
Feb 94	140	15	1.20	660	13	0.61	315	14	1.81
Oct 94	84	<10	1.36	760	23	0.84	342	15	2.20
Mar 95	120	6	1.41	570	9	0.59	253	7	2.00
Feb 96 ²	63	13	1.30	440	54	0.53	172	25	1.83
Mar 96	81	<255	0.95	740	<255	0.54	320	-	1.49
Nov 96	117	5	1.65	471	11	0.68	220	7	2.33
Mar 1997	150	4.7	1.46	484	11	0.57	244	6	2.03
Average	116	9		545	19		259	12	
Maximum	180	15		760	54		342	25	
Expected ³	324	35		1254	248		513	70	
Average ⁴					14			11	
Maximum ⁴					23			15	
Expected ⁴					55			36	

¹ October 93 sample re-tested for zinc

² Delayed sampling from previous fall

³ Based on 99-percentile for log normal distribution at 99 percent confidence limits following method given in the Water Quality-based Toxics Control TSD (EPA/505/2-90-001, March 1991)

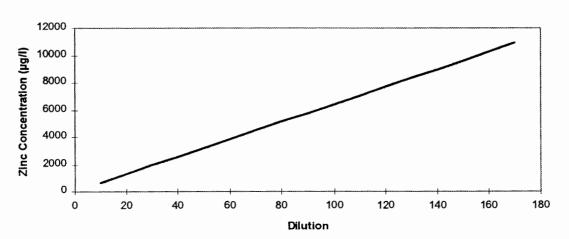
⁴ Based on elimination of the 54 μg/l copper concentration from February 1996 testing

⁵ Values not used in averages because detection limit considered abnormally high

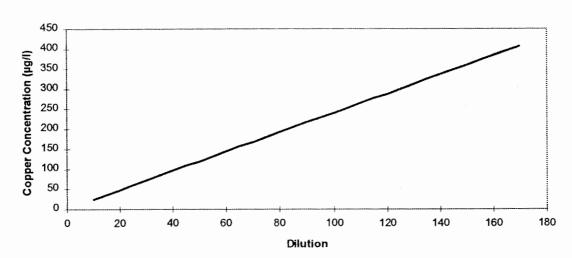
⁶ Flow weighted calculation of concentrations

ATTACHMENT III Required Dilution for Zinc and Copper

Required Dilution for Zinc



Required Dilution for Copper



Star-Kist Foods, Inc.

Red 6/2/97
My
Com to Dons

Memo

Date:

30 May, 1997

To:

Pat Young

From:

Norman S. Wei

NSW

Subject:

NPDES Permit Renewal for StarKist Samoa

Please find enclosed a copy of StarKist Samoa's permit renewal application.

You can call Steve Costa or me if you have any questions.

Enclosure

CONTINUED FROM THE FRONT		المراجع والمحادث	and the section and the section
VII. SIC CODES (4-digit, in order of priority)		•	
A. PIRST	El I I Internation	B. SECOND	<u> </u>
72091 (specify) Tuna processing 4 canning	7 2047	set food proce	essing
7 20 48 (specify) Fishmeal production	7 3 41 1 (specify) He	tal cans man	ufacturing
VIII. OPERATOR INFORMATION			
STARKIST SAMOA INC			B. is the name listed item VIII-A also to swner?
c. STATUS OF OPERATOR (Exter the appropriate letter into the sour	wer hav: M "Other" -medfy 1	D. PHONE	(eres sode # no.)
	(specify)	A 684	644 4231
E. STREET OR P.O. BOX		Mind Francis	1 33445 - 4-47
P.O. R.O.X. 4.68	19		The state of the s
BPAGO PAGO TUTUILA	AS 967	ts the facility locate	d on Indian lands?
19 16		91	
	ns from Proposed Sources)		
9 N A S 6 0 0 0 0 1 9 9 P			
	ER (specify)		
910 91 00 - 91	3-01	OCEPN DUMPI	NO Permit
	ER (specify)		
9 R		(specify)	
XI. MAP	10		
Attach to this application a topographic map of the area extending the outline of the facility, the location of each of its existing and treatment, storage, or disposal facilities, and each well where it in water bodies in the map area. See instructions for precise requirements	proposed intake and disch	arge structures, each of	its hazardous waste
XII. NATURE OF BUSINESS (provide a brief description)			
Stackist Samon processes and can	is tima tist	h and other	
in one dients for human consumption	. It also	cans pet	tova
and processes trilineal. It in	annfactures !	its metal	cans,
			The same
I certify under penalty of law that I have personally examined and attachments and that, based on my inquiry of those persons important application, I believe that the information is true, accurate and confalse information, including the possibility of fine and imprisonment.	mediately responsible for a molete, I am aware that ti	obtaining the information	on contained in the
NORMAN WE (Ope or print)		<u></u>	DATE SIGNED
COMMENTS FOR OFFICIAL USE ONLY	Vanab	ノー	3/20/77
C			
EPA Form \$510-1 (8-90)			57

FORM 2C NPDES



U.S. ENVIRONMENTAL PROTECTION AGENCY APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS

Consolidated Permits Program

OO	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)		
	1. DE4.	Z. MIN.	3. SEC.	1. DEG.	E. MIN.	3. SEC.	D. RECEIVING WATER (Marte)		
	14 S	17	01	170W	40	02	Pago Pago Harbor		
		<u> </u>	<u> </u>	 	ļ	 			
			•			1 1			

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

- A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.
- B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUT-	2. OPERATION(S) CONTRIBUT	ING FLOW	3. TREATMENT				
FALLNO (list)	& OPERATION (list)	b. AVERAGE FLOW (include units)	A DESCRIPTION	b. LIST CODES FROM TABLE 2C-1			
		% of total					
		flow					
	a. Freeze (mdensate	0.4	DAF unit	1-H, 2-c, 4-B			
	b. Than water + can						
	washing + boiler						
	blowdown	63.7	DAF unit	1-H, 2-C, 4-B			
	c Butchering	1.7	DAF unit	1-H, 2-C, 4-B			
	d Precooker	3.5	ocean disposal via	Perint 191,00			
	e soray cooling	4.3	DAF cin.t	142-C4B			
	f Press liquor	0.8	Ocean disposal via p	rint			
	h washdown	75.6	DAF unit	1-H, 2-C, 4-B			
	·						
:	_						
OFFICIA	L USE ONLY (effluent guidelines sub-categories)			1			

ONTINUED FROM PAGE		The second second second		The second secon	Section 19 Section 2 Secti
/. INTAKE AND EFFLUE			and the second of the	The second secon	
A, B, & C: See instructi NOTE: Teb	ions before proceeding — lies V-A, V-B, and V-C are	Complete one set of tables e included on separate shee	s for each outfall — An	notate the outfall numbe ugh V-9.	r in the space provided.
 Use the space below discharged from any possession. 	to list any of the pollut outfall. For every pollu	ants listed in Table 2c-3 o stant you list, briefly descri	f the instructions, whi ribe the reasons you b	ich you know or have rea selieve it to be present as	son to believe is discharged or may nd report any analytical data in yo
1. POLLUTANT		2. SOURCE	1. POLLU	TANT	2. SOURCE
All and	hytical dat	have been will will	en submit	libin D.2	
to EV	A Kegion 7	mout 101			
					•
. POTENTIAL DISCHA	RGES NOT COVERED	BY ANALYSIS	ter and the state of the state	or the state of th	Marie Committee of the second
is any pollutant listed in I byproduct?	tem V-C a substance or a	component of a substance	e which you currently	use or manufacture as a	intermediate or final product or
oypi oddeti	VEE (list all aux	ch pollutants below)		NO (go to Item V	77 D)
		m politicants below)		ZNO (80 to Hem v	1-10/
		• 1			
		•			

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages, SEE INSTRUCTIONS.

V. INTAKE AND EFFLUENT CHARACTERISTICS (continued from page 3 of Form 2-C)

OOI

PART A - You m	iust provide the	a results of at le			utant in this tab	ole. Complete	one table for			+		
				EFFLUENT	TET AND TEBLE	TUBE VALUE	<u>, ,</u>	3. UN			TAKE (option	al)
1. POLLUTANT	a. MAXIMUM	DAILY VALUE	b. MAXIMUM 3	ilobic) VALUE	c.LONG TERM	ilable)	d. NO. OF			AVERAGE	EVALUE	b. NO. OI
	(+)	(2) MASS	(1)	(z) MASS	CONCENTRATION	(2) MASS	ANALYSES	B. CONCEN- TRATION	b. MASS	CONCENTRATION	(7) MASS	ANALYSI
a. Biochemical Oxygen Demand (BOD)	708	6524	602	5011	393	4165	97	ng/	Modey	,		
b, Chemical Oxygen Demand (COD)	710	8351					,	mg/l	Molay			
c. Total Organic Carbon (TOC)	290	3606						mg/1	May			
d. Total Suspended Solids (TSS)	373	4267	177	2033	68	731	531	~1/1	16/lay			
e. Ammonia (as N)	119	1261	57	661	33	349	289	mg/2	16/de	7		
f. Flow	Z.	-12	VALUE /	1.61	VALUE /·	.27	536	MGD		VALUE		Ì
g. Temperature (winter)	N	I/A	VALUE N	1/A	VALUE	1/A	N/A	بر	of a	VALUE		
h, Temperaturé (summer)	VALUE 6	74	VALUE	87	VALUE 8	PZ	522	*	e of	VALUE		
l. pH	0.1	MAXIMUM 9.8	6.5	7.8			1526	STANDAR	DUNITS		><	

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutar which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mar column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirement.

1. POLLUT-	2, MA	KK 'X'			3.	EFFLUENT				4. UI			AKE (options	11)
CAS NO.	B. BE-	b. uz-	a, MAXIMUM I	DAILY VALUE	b. MAXIMUM 3	ROBAY VALUE	c.LONG TERM	AVRG. VALUE	d NO. OF	a. CONCEN-	b. MASS	a, LONG	TERM E VALUE	NO. C
(if available)	SENT		CONCENTRATION	(2) MASS	(I)	(2) MASS	CONCENTRATION	(2) MASS	YSES	TRATION	U, M A 8 9	CONCENTRATION	(2) MASS	YSE
e. Bromide (24959-67-9)		X												
b. Chlorine, Total Residual	٠	×		•	4			r. •		**`	* .			
c. Color	X		Blieve	to be	not impo	Aout.	* 3	e e.	1	N.				
d, Fecal Collform		X		1, 20g		• 1, 1, 1,	, `		S. W. 15	Υ.	. *			
e, Fluoride (16984-48-8)		×		•										
f. Nitrate— Nitrite (as N)	Х		< 0.01	<0.12					1	mg/2				

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater; refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 26 for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to the places review each carefully. Complete one table (all 7 pages) for each outfall. See instructions for additional details and requirements

be dis	charge	d. Note	that t	here are 7 pages	to this part; ple	ase review each	carefully. Compl	ete one table (all	7 pages) for each	h outfall.	See instruction	ons for additi	onal details a	nd requireme	ints.
1. POLLUTANT	2.1	MARK	'X'				EFFLUENT					STIN	5. IN	TAKE (optio	mal)
AND CAS NUMBER	ATEST	D. BE-	C DE-	a, MAXIMUM I	DAILY VALUE	b. MAXIMUM 3	ilable)		AVRG. VALUE	d NO.OF	a. CONCEN-	b. MASS	A. LONG	TERM E VALUE	b. NO. OF
(if available)	RE- QUIR- ED	D. BE- LIEVED PRE- SENT	SENT	(1) CONCENTRATION	(2) MASS	CONCENTRATION	(2) MASS	CONCENTRATION	(Z) MASS	YSES	TRATION	U. M. 233	(I) CONCEN- TRATION	(2) MASS	YSES
METALS, CYANID	E, ANI	TOT	AL PHI	ENOLS											<u> </u>
1M. Antimony, Total (7440-36-0)			X							4					
2M. Arsenic, Total (7440-38-2)		X		0.01						8					
3M. Beryllium, Total, 7440-41-7)			×							4					
4M. Cedmium, Totel (7440-43-9)		×		0.01						8					
5M. Chromium, Total (7440-47-3)			У			. ,	,			4					
6M. Copper, Total (7440-50-8)		×		0.015						8					
7M. Land, Total (7439-92-1)			X							8					
8M. Mercury, Total (7439-97-6)			×							8					
9M. Nickel, Total (7440-02-0)			×							4					
10M. Selenium, Total (7782-49-2)		X		0.015						8					
11M. Silver, Total (7440-22-4)			X	0.13	(Not det	ected in	last ba	Past 3	year)	8					
12M. Thallium, Total (7440-28-0)			X							4					
13M. Zinc, Total (7440-66-6)		·	×	0.180						8					
14M. Cyanide, Total (57-12-5)			X				,			4					
15M. Phenois, Total		X		[.3						8					
DIOXIN															

DIOXIN

2,3,7,8-Tetra-One test (undetected) at detection limit chlorodibenzo-P-Dioxin (1764-01-6)

picogram / litre

ľ	0	٩	ľ	T	ı	V١	U	E	D	F	ŀ	30	N	1	P	١	G	E	١	/-	4	

CONTINUED FROM	PAGE	V-4													
1. POLLUTANT	2. 1	MARK	,x,			3,	EFFLUENT				4. UN	IITS		TAKE (option	nal)
AND CAS NUMBER (if available)	ATEST.	D. BE-	C BE- LIEVED AB- SENT	a. MAXIMUM C	· · · · · · · · · · · · · · · · · · ·				indoie)	I VIVE.	B, CONCEN- TRATION	b, MASS	AVERAG		b. NO. OF
GC/MS FRACTION					(2) MASS	CONCENTRATION	(Z) MASS	(I) CONCENTRATION	(2) MABS	YSES			TRATION	(z) MASS	YSES
			CON	IFOONDS (contin	iuea)						 				
22V. Methylene Chloride (75-09-2)			$ \mathbf{x} $							4					
23V, 1,1,2,2-Tetra- chloroethane (79-34-5)			×					7		CL					
24V, Tetrachioro- ethylene (127-18-4)			X							4					
25V. Toluene (108-88-3)			X							4					
26V. 1,2-Trans- Dichloroethylene (156-60-5)	,		X						7	4					
27V. 1,1,1-Tri- chloroethane (71-55-6)			X				,			4					
28V. 1,1,2-Tri- chloroethane (79-00-5)			X							4					
29V. Trichloro- ethylene (79-01-6)			X							4					
30V. Trichloro- fluoromethane (75-69-4)			X				, .			4					
31V, Vinyl Chloride (75-01-4)			X							4					
GC/MS FRACTION	- ACI	D COM	MPOUN	IDS											
1A. 2-Chlorophenol (95-57-8)			X							8					
2A. 2,4-Dichloro- phenol (120-83-2)			×							8					
3A. 2,4-Dimethyl- phenol (105-67-9)			X							Q					
4A. 4,6-Dinitro-O- Cresol (534-52-1)			<							8					
5A. 2,4-Dinitro- phenol (51-28-5)			X							8					
6A, 2-Nitrophenol (88-75-5)			X							8					
7A. 4-Nitrophenol (100-02-7)			X							8					
8A. P-Chloro-M- Cresol (59-50-7)			×							B					
9A. Pentachloro- phenol (87-86-5)			X							8					
10A. Pheno! (108-95-2)		×		0.5						8					
11A. 2,4,6-Tri- chlorophenol (88-06-2)										8					

EPA I.D. NUMBER (copy from Item 1 of Form 1) OUTFALL NUMBER

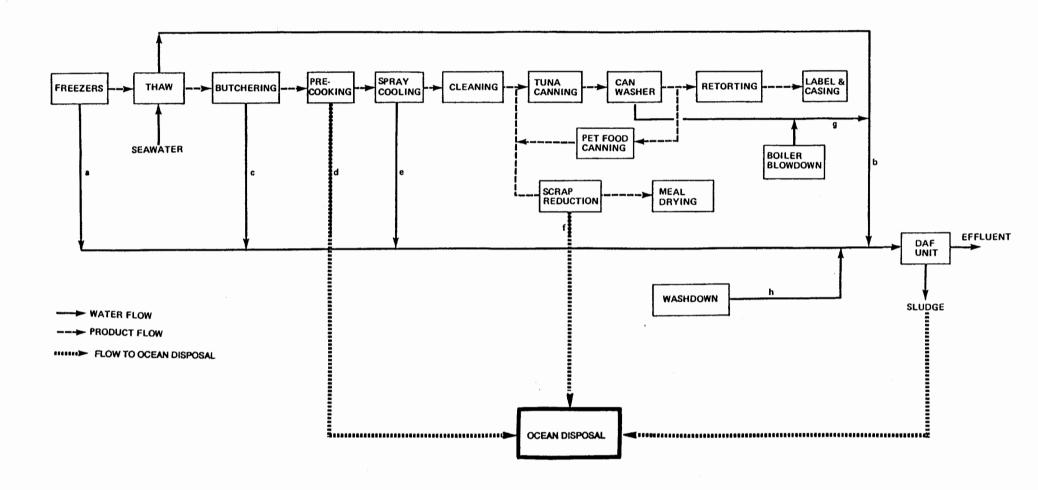
CONTINUED FRO	M PAG	E V-6													
1. POLLUTANT AND CAS	2.	MARK	'x'				EFFLUENT				4. UI	VITS		TAKE (optic	mal)
NUMBER	ATEST	D. BE- LIEVED PRE- SENT	C DE-	a. MAXIMUM				c.LONG TERM		d NO.DF	I a. CUNCENT	b. MASS		TERM E VALUE	b NO OF
					(Z) MASS	CONCENTRATION	(2) MASS	(I)	(2) MASE	YSES	TRATION		(I) CONCEN-	(z) MASS	YSES
GC/MS FRACTION	- BA	SE/NE	JTRAI	L COMPOUNDS	(continued)										
22B. 1,4-Dichloro- benzene (106-46-7)			X							8					
23B. 3,3'-Dichloro- benzidine (91-94-1)			X							8					
24B. Diethyl Phthalate (B4-66-2)			<							8					
25B. Dimethyl Phthalate (131-11-3)			<							8					
26B. Di-N-Butyl Phthalate (B4-74-2)			X				,			8					
27B. 2,4-Dinitro- toluene (121-14-2)			X							8		,			
28B. 2,6-Dinitro- toluena (606-20-2)			X							8					
29B, Di-N-Octyl Phthalate (117-84-0)			X		_					8					
30B. 1,2-Diphenyl- hydrazine (as Azo- benzene) (122-66-7)			×							&	. ,				
31B, Fluoranthene (206-44-0)			<							8			_		1
328, Fluorene (86-73-7)			X	·						8					
33B. Hexachlorobenzene (118-74-1)			X			·				8					
348, Hexa- chlorobutadiene (87-68-3)			X							8					
35B. Hexachioro- cyclopentadiene (77-47-4)			X							8	,				
36B. Hexachloro- ethane (67-72-1)			X							Q					
37B, Indeno (1,2,3-cd) Pyrene (193-39-5)			X							8					
388. Isophorone (78-59-1)			X							8					
398, Naphthalene (91-20-3)			X							8					
408. Nitrobenzene (98-95-3)			X							8					
418. N-Nitro- sodimethylamine (62-75-9)			X							8					
428, N-Nitrosodi- N-Propylamine (621-64-7)			X				,			8					

EPA I.D. NUMBER (copy from Item 1 of Form 1) OUTFALL NUMBER

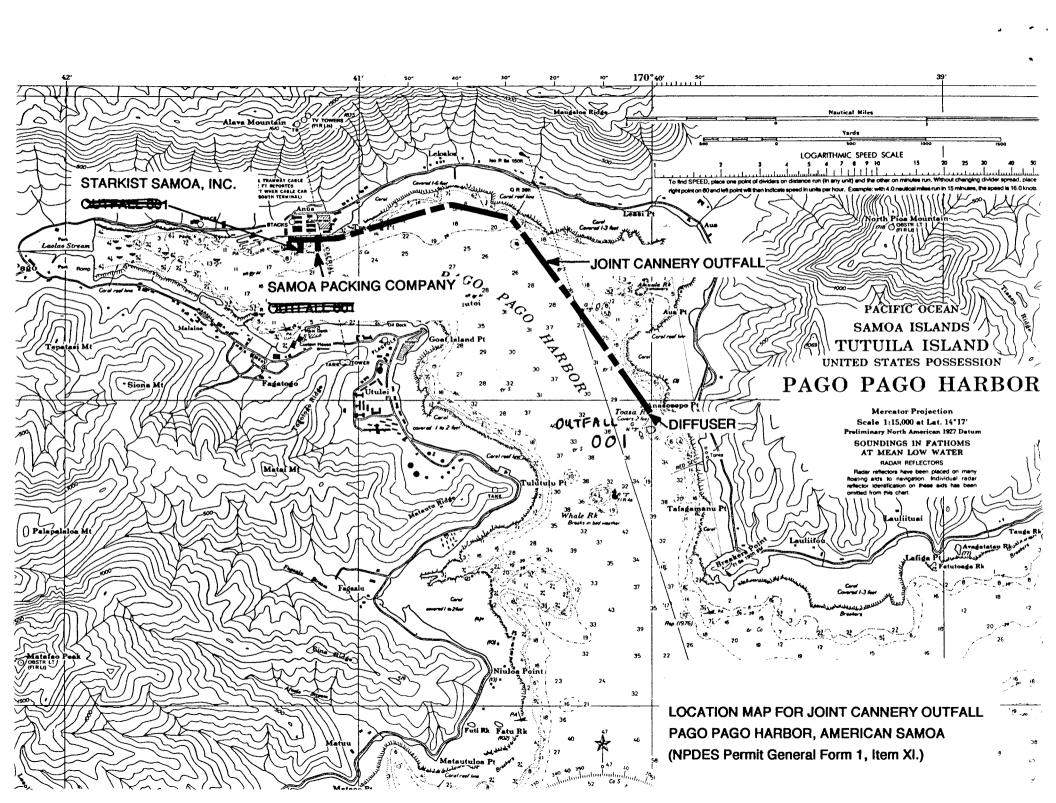
CONTINU	11-13	HUM	PAG	if V.X	

CONTINUED FROM	PAG	F A-8													9.1
1. POLLUTANT	2.	MARK	'X'				EFFLUENT				4. UI	NITS	5. IN	TAKE (optic	onal) ,
AND CAS Number	A TEST	D. BE- LIEVED PRE- SENT	C DE-	B. MAXIMUM	DAILY VALUE		DAY VALUE	c.LONG TERM	ilable)	d NO.OF	a. CONCEN- TRATION	b. MASS	A LONG	TERM E VALUE	b. NO.OF
(if available)	OUIR.	SENT	SENT	CONCENTRATION	(2) MASS	CONCENTRATION	(z) MASS	CONCENTRATION	(2) MASS	YSES	TRATION		(I) CONCEN- TRATION	(2) MASS	YSES
GC/MS FRACTION	- PES	STICIDI	ES (co	ntinued)											
17P. Heptachior Epoxida (1024-57-3)			X							4					
18P, PCB-1242 (53469-21-9)			X							4					
19P. PCB-1254 (11097-69-1)			×							4					
20P. PCB-1221 (11104-28-2)			X							4					
21P, PCB-1232 (11141-16-5)			X							4					
22P. PCB-1248 (12672-29-6)			X						·	4					
23P, PCB-1260 (11096-82-5)			X							4					
24P. PCB-1016 (12674-11-2)			X							4					
25P. Toxaphene (8001-35-2)			×							4					

PAGE V-9



WATER FLOW DIAGRAM STARKIST SAMOA, INC. (NPDES Permit Form 2C, Item IIA.)





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 9

75 Hawthorne Street San Francisco, CA 94105-3901

February 26, 1998

Mr. Barry Mills General Manager StarKist Samoa, Inc. P.O. Box 368 Pago Pago, American Samoa 96799

RE: NPDES Permit Renewal NPDES Permit AS0000019

Dear Mr. Mills:

By way of this letter, we are administratively extending your permit until new ones are issued. All permit requirements and limitations shall stay the same during this interim period with the exception of the ambient monitoring plan. As discussed in more detail below, we are proposing to revise your ambient monitoring program with the goal of better gauging water quality throughout Pago Pago harbor while not increasing the canneries' current level of effort.

Monitoring data collected by the canneries has shown marked improvement in water clarity in inner Pago Pago harbor. This improvement is due undoubtedly to the relocation of the canneries outfall. However, though the clarity of the water in Pago Pago has improved, water quality problems still exist and remain a concern. Various harbor monitoring studies have indicated the presence of heavy metals in the water column (lead, copper and zinc), sediments (lead, mercury, copper, zinc, tributyltin) and fish tissue (chromium, arsenic, lead, mercury, and PCBs). In addition, there still exists a fish advisory warning residents not to eat fish caught in the Harbor.

Although the various monitoring studies have been informative, the monitoring data is sparse, and the source(s) of these pollutants remains unclear. Without a more comprehensive knowledge of conditions in the harbor, it will be difficult to gauge changes in water quality over time, and make informed decisions to protect the public health. Also, without knowing background concentrations of metals, it will be very difficult to determine the dilution necessary for the canneries' discharges to meet water quality standards for certain pollutants (i.e., copper and zinc).

We and ASEPA are soliciting the views and participation of all parties who are or will be affected by or are interested in water pollution control in American Samoa (i.e. Tuna Canneries, Southwest Marine, ASG, ASPA, public). To that end, we hope the canneries will be receptive to playing a more comprehensive role in monitoring Pago Pago harbor. Changes in the canneries' ambient monitoring program would be made in exchange for certain existing monitoring requirements. Therefore, the canneries monitoring effort should not increase, and may decrease.

We hope the canneries will participate us, and ASEPA, in the design of the harbor-wide monitoring program.

As a preliminary step to designing the new receiving water monitoring program, we are currently compiling all data that exists regarding Pago Pago harbor.

Thank you in advance for your anticipated participation in this process. If you have any questions, please contact Carl Goldstein of my staff at (415) 744-2170.

Norm Lovelace, Manager

Pacific Insular Area Programs

cc: ASEPA

Doug Liden, EPA Region 9

Watershed Approach in Pago Pago Harbor, American Samoa.

Since 1972, the NPDES program has been issuing permits on fairly random basis, depending more on the order the application was received and the political profile of the site than on the true environmental impact of the facility submitting it. Though the program has been largely successful in controlling point-source pollution on a facility by facility basis, it has often masked more complex problems of storm-water and other non-point source pollution. Moreover, attention and resources have been focused more on the industries than the receiving waters that the program was designed to protect.

Pago Pago Harbor in American Samoa is one of many examples showing both the pros and cons of the standard regulatory approach. USEPA took enforcement action against the tuna canneries approximately eight years ago. This action resulted in the building of a much longer outfall pipe and consequently significant improvements in water quality in the harbor. This is a good example of how EPA's command and control approach can work where the problem is clearly understood, and the source is known, discrete, and controllable.

However, though the clarity of the water in Pago Pago has improved dramatically, water quality problems still exist. Toxic heavy metals are reported in various monitoring studies in the water column (lead, copper and zinc), sediments (lead, mercury, copper, and zinc) and fish tissue (chromium, arsenic, lead, and mercury). Based on these findings, there exists a fish advisory warning residents not to eat fish caught in the Harbor. Ironically, improvement in water clarity in the Inner Harbor may well encourage more Samoans to ignore the advisory and continue to fish there.

Unfortunately, monitoring data is sparse, and the source of these metals is largely unknown. A large portion may result from past naval operations in the harbor. Southwest Marine Railway, a major ship and repair facility, is also a likely contributor. Without a clear picture of the severity of the problem and the sources though, it is extremely difficult to determine where limited resources should be directed. In addition, without a comprehensive study of the harbor, it will be impossible to gauge changes in water quality over time, and consequently, the efficacy of regulatory efforts.

One of the approaches widely used by now by EPA to more effectively address the concerns above is referred to as the "Watershed Approach." This approach focuses on collective strategies to attain broader protection of water quality and habitat. This requires a shift from the traditional source-by-source approach to the broader geographic basis where collective decisions can be made. The hydrologic unit on which this new approach is based is the watershed. Because of EPA and ASEPA's shared roles in implementing the water program, the watershed approach will require a high degree of coordination and partnership between the two agencies, during which our respective roles are clearly defined and distinguished.

Throughout the process of converting to the watershed permitting approach, EPA and ASEPA would solicit the views and participation of all parties who are or will be affected by or are interested in water pollution control in American Samoa (i.e. Tuna Canneries, Southwest Marine, BHP Satala, ASPA, POTW, public). This approach should lend itself especially well in the outer islands where the regulatory agencies try to build cooperative relationships with industry. The watershed permitting approach presupposes the integral involvement of all interested parties, or stakeholders, within a given watershed. Therefore, the steps towards implementing the watershed approach, as well as the final, sequential approach itself are all subject to review, revision and possible adaptation to localized, site-specific circumstances. These steps are roughly described below:

1. Delineation of Major Watersheds and Development of Permit Issuance Schedule.

Delineation of the Watersheds should be fairly simple. Most permittees discharge to Pago Pago Harbor. EPA and ASEPA would then issue permits in a synchronized manner by watershed. This places all permits in the state on a five year watershed-based cycle.

2. Review and Assessment of Watershed Information,

EPA/ASEPA would assess major watersheds in accordance with the tentative delineation and schedule of watershed permitting. All available information including 305(b) Water Quality Assessment Reports, 208 Water Quality Management Plans, 319 Nonpoint Source Assessment Reports and Management Programs, special studies performed by tuna canneries and primary data sources such as STORET will be consulted to determine both existing water quality conditions and anticipated future trends and conditions. In order to initiate watershed permitting, a brief assessment report, based entirely on existing information, shall be prepared for each major watershed. This report shall also identify areas of uncertainty, such as data gaps or incongruities. This should be a fairly simple task as data in Pago Pago is scarce. A consultant for the tuna canneries has initiated this step by compiling and summarizing all data collected by the canneries.

3. Conduct Special Monitoring Programs as Necessary

a. Based on the outcome and recommendations of the major watershed assessments, it may be necessary to revise monitoring programs or carry out special studies in order to adequately characterize water quality conditions and determine necessary point and nonpoint source controls. EPA and ASEPA should assist in developing monitoring programs as necessary to address these cases, in consultation with other agencies and stakeholders involved in data gathering or analysis. Where water quality-limited segments have been identified and as resources allow, pollutant loading and fate and transport models should be identified and monitoring programs conducted to assist in the development of TMDLs/WLAs.

b. Intensive surveys should be conducted within a year or two following permit issuance in order to provide sufficient time for analysis of the results, revision of WQMA assessments, and development of proposed controls. During a normal, five-year permitting cycle beginning with permit issuance, monitoring programs may be developed and approved during the first year and implemented by the second year. Ordinarily, it is assumed that interim or final results will be available for the third year of the cycle, when watershed assessment begins with analysis of monitoring data.

4. Assessment and Recommendation of Pollutant Controls

a. Using the same information sources identified in 2.a above, and additional information obtained through special monitoring programs (as described in 3 above) and from stakeholders and interested parties, the watershed will be assessed. As is the case for major basin assessments, it remains to be determined who would conduct these assessments. Water quality-limited segments, existing total maximum daily loads/wasteload allocations (TMDLs/WLAs) and segments potentially needing TMDLs/WLAs (taking into account what is known about new sources and future development) shall be identified and measures to reduce or eliminate water quality problems may be suggested. The assessments should also include more specific identification of data gaps and potential means of addressing them (e.g. by means of expanded monitoring programs or intensive surveys, and who should conduct these). (A particular area of interest is whether effluent compliance monitoring in permits could be reduced in return for increased ambient monitoring.)

As the watershed approach becomes established as the means by which all permits and other water pollution control activities in American Samoa are implemented, WQMA assessment will become a regular component of the five-year permitting cycle. Logically, assessments should be conducted or updated following implementation of monitoring programs in each WQMA. Recommendations for pollution control activities and/or revisions to monitoring requirements can then be incorporated into watershed plans or agreements as described in section 5 below.

b. Outreach/Coordination and Status: All involved and interested parties should be consulted in determining priority water quality issues within watersheds and how these should be addressed, and in evaluating recommendations for revisions in monitoring programs and establishment of pollutant controls.

5. Development of Watershed Plans/Agreements

Following completion of watershed assessments and recommendations for pollutant controls, stakeholders will be convened to develop watershed plans, agreements or

management strategies. Such plans/agreements will incorporate any TMDLs/WLAs which may have been adopted and should include discussion of the means by which recommended controls are to be implemented.

6. Permit Issuance

Once watershed plans have been established with the participation of key stakeholders, including permittees, NPDES permits may be drafted and issued to implement them, as appropriate. The first step in achieving this full-fledged watershed permitting approach is to insure that permit issuance is synchronized in each major watershed. With synchronized permits in place by watershed, it will be possible to coordinate watershed-scale pollutant monitoring and/or control programs in an efficient and equitable manner. Ideally, all permits in a watershed may be public noticed and issued in tandem, such that the plan requirements can be incorporated into one or more permits and considered jointly by all interested parties.

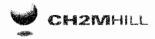
As described in the various sections above, other elements of the watershed permitting approach such as watershed assessment, monitoring, and planning may occur in selected watersheds or sub-basins during the next five years. Some watershed projects or overall assessment efforts are currently underway and others are being planned or are subject to the availability of grant funding and other resources. As these projects are undertaken, their results and/or recommendations may be incorporated into permits as appropriate even during this transitional period.

Relationship of Watershed Permitting and Other Pollutant Control Programs

The watershed permitting approach is organized around the five year NPDES permit duration. Other pollutant control programs being implemented in Samoa, such as nonpoint source management, aquifer protection permitting, 404 dredge and fill permitting, underground injection control and other drinking water protection efforts—as well as indirect or underlying regulatory functions such as water quality standard setting, 305(b) water quality assessments, the continuing planning process, 208 water quality management planning and development of total maximum daily loads/wasteload allocations—are not bound by the same scheduling constraints as NPDES permitting and therefore may not be as readily adaptable to a rotating, sequential treatment of watersheds and sub-basins as is described above.

In initiating and converting the NPDES program in American Samoa to a watershed permitting approach, EPA is not proposing that other water quality management programs should re-align their activities or cycles to coincide with the schedule established here. Those activities should proceed on their own established schedules, or on an as-needed basis as required by statute or regulation. Rather, the activities and their results or expected outcomes should be described and taken into account in developing watershed assessments, the third step of the five-year watershed permitting cycle. In the following steps of the cycle, plans or agreements and the

pollution control measures recommended in them should be developed and implemented in consideration of and with participation by stakeholders involved in all other, non-NPDES activities occurring in the watershed or sub-basin. Thus, the watershed plan or agreement will represent a comprehensive water quality management plan similar to those required by Section 208 of the Clean Water Act. In certain cases, it may even be appropriate to re-align (if necessary) designated 208 planning areas to conform with watershed, or to group watershed assessments and plans into revised 208 plans, which must be updated 'as needed' under 40 CFR Part 130.6(e).



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13 April 2005

Mr. Carl Goldstein

Pacific Insular Area Programs

CMD-1

Environmental Protection Agency

75 Hawthorne Street

San Francisco, CA 94105

Mr. Peter Peshut

American Samoa Environmental

Protection Agency

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P.O. Box 368A

Pago Pago, American Samoa 96799

RE: Corrections to "StarKist Samoa Effluent Priority Pollutant Analysis - September 2004 Sampling", Technical Memorandum, CH2M HILL, 22 December 2004.

During review of the Technical Memorandum describing the results of the priority pollutant analysis done for the StarKist Samoa wastewater effluent (September 2004 sample) it was discovered that Tables 4, 5, and 6 were incorrect. Enclosed please find two copies of the corrected Tables (pages 7-10). Also enclosed is a replacement for page 3 which included a brief discussion of the Tables in question. Please replace the existing pages 3, 7-10) with the corrected versions. Note that the results of the analyses are not significantly different and the detailed laboratory data included with the report was correct and does not require revision.

We apologize for any inconvenience or confusion. Please call us if you have any questions or comments on the enclosed report,

Sincerely

Karen A. Glatzel Steven L. Costa

Stew L Corto

Enc: Two copies of corrected Tables 4, 5, and 6 and page 3 of the text.

cc: Steve Erickson, Del Monte Foods (w/one copy of enclosure)
Phil Thirkel, StarKist Samoa (w/one copy of enclosure)
Joe Carney, StarKist Samoa (w/one copy of enclosure)
David Wilson, CH2M HILL (w/one copy of enclosure)

Metals

The effluent sample results for metals indicates that seven metals were detected as present, aluminum, barium, boron, cadmium, iron, manganese, mercury, and zinc (Table 3). Four other metals, antimony, arsenic, selenium, and titanium, were estimated (designated as B) between the method reporting limit (MRL) and the method detection limit (MDL).

Organochlorine Pesticides and PCB's

The effluent sample test results indicate no constituents in this category were detected.

Volatile Organics and Semi-Volatile Organics

Volatile organics analysis of the effluent sample indicated that one constituent, toluene, was detected at an estimated concentration of $0.3~\mu g/1$ (Table 5), which is well below water quality criteria. All other constituents were reported below the MDL.

The semi-volatile analysis results (Table 6) for the effluent sample reported one constituent being detected. Phenol was reported at 220 μ g/l, which is well below water quality criteria.

		T	able 4.	<u></u>				
9	StarKist	Samoa Ef	fluent	Priorit	y Pollut	ant		
Organochlori	ne Pestic				ated Bip	henyls	Analys	sis
		Septe	ember	2004				
Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
alpha-BHC	0.23	U, i		5	0.23	0.23		
beta-BHC	0.052	U, i	1	5	0.052	0.052		
gamma-BHC			1				1	
(Lindane)	0.025	U, i		5	0.052	0.025	ŀ	
delta-BHC	0.0073	U		5	0.052	0.0073		
Heptachlor	0.0098	U, i		5	0.052	0.0098		
Aldrin	0.042	U, i	•	5	0.052	0.042		
Heptachlor Epoxide	0.0048	U, i		5	0.052	0.0048		
Endosulfan I	0.0062	U, i		5	0.052	0.0062	1	
Dieldrin	0.0036	U		5	0.052	0.0036		
4,4'-DDE	0.052	U, i		5	0.052	0.052		
Endrin	0.043	U, i		5	0.052	0.043		
Endosulfan II	0.0098	U		5	0.052	0.0098		İ
4,4'-DDD	0.074	U, i	μg/l	5	0.074	0.074	EPA	608M
Endrin Aldehyde	0.0062	U		5	0.052	0.0062	3520C	
Endosulfan Sulfate	0.0073	U		5	0.052	0.0073		
4,4'-DDT	0.013	U		5	0.052	0.013		
Toxaphene	1.2	U, i		5	5.2	1.2		
Chlordane	0.76	U, i		5	5.2	0.76		
Aroclor 1016	0.11	U		1	1.1	0.11		
Aroclor	0.066	U		1	1.1	0.066		
Aroclor 1232	0.045	U		1	1.1	0.045		
Aroclor 1242	0.087	U		1	1.1	0.087		
Aroclor 1248	0.018	U		1	1.1	0.018		
Aroclor 1254	0.0087	U		1	1,1	0.0087		
Aroclor 1260	0.022	U		1	1.1	0.022		

	Table 5. StarKist Samoa Effluent Priority Pollutant
	Volatile Organic Analysis
September 2004.	September 2004.

		Ptombe	1 200					_
Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
Chloromethane	0.31	U			5.0	0.31		
Vinyl Chloride	0.58	U			5.0	0.58		
Bromomethane	0.81	U			5.0	0.81		
Chloroethane	0.46	U			5.0	0.46		
Trichlorofluoromethane (CFC 11)	0.49	U			5.0	0.49		
1,1-Dichloroethene (1,1-DCE)	0.48	U			5.0	0.48		
Dichloromethane (Methylene			'		5 0	0.21		
Chloride)	0.21	U			5.0 5.0	0.19		
trans-1,2-Dichloroethene	0.19	U			5.0	0.19		
1,1-Dichloroethane (1,1-DCA)	0.34 0.21	U			5.0	0.21		
Chloroform	0.45	U			5.0	0.45		
1,1,1-Trichloroethane (TCA)	0.43	U			5.0 5.0	0.38		
Carbon Tetrachloride	0.30	J			5.0	0.27		
Benzene 1,2-Dichloroethane (EDC)	0.12	U			5.0	0.12		l
Trichloroethene (TCE)	0.46	U			5.0	0.46		
1,2-Dichloropropane	0.19	U			5.0	0.19		
Bromodichloromethane	0.17	Ū	μg/l	1	5.0	0.17	none	624
2-Chloroethyl Vinyl Ether	0.62	U	1.0		10.0	0.62		
trans-1,3-Dichloropropene	0.17	U			5.0	0.17		
Toluene	0.3	0J			5.0	0.25		l
cis-1,3-Dichloropropene	0.17	U		1	5.0	0.17		
1,1,2-Trichloroethane	0.21	U			5.0	0.21		
Tetrachloroethene (PCE)	0.43	U			5.0	0.43		
Dibromochloromethane	0.15	U			5.0	0.15	l	
Chlorobenzene	0.18	U	İ		5.0	0.18		1
Ethylbenzene	0.33	U	l		5.0	0.33	Ì	1
Bromoform	0.28	U		1	5.0	0.28		
1,1,2,2-Tetrachloroethane	0.25	U			5.0	0.25		
1,3-Dichlorobenzene	0.17	U	l		5.0	0.17	ŀ	
1,4-Dichlorobenzene	0.17	U			5.0	0.17		
1,2-Dichlorobenzene	0.19	U			5.0	0.19		
Acrolein	4.3	U			50	4.3		
Acrylonitrile	0.45	U			10	0.45		

0.58

0.48

0.51

0.70

0.57

4.5

3.9

20

20

20

20

20

50

50

		Table oa Efflue e Analysis	nt Prio			t ,		
Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
N-Nitrosodimethylamine	0.96	U			50	0.96		
Bis(2-chloroethyl) Ether	0.67	U			20	0.67		
Phenol	22	20=			20	0.65		
2-Chlorophenol	0.63	U]		20	0.63		
1,3-Dichlorobenzene	0.71	U			20	0.71		
1,4-Dichlorobenzene	0.64	U] `		20	0.64]	
1,2-Dichlorobenzene	0.87	U			20	0.87]	
Bis(2-chloroisopropyl) Ether	0.63	U			20	0.63		
Hexachloroethane	0.58	U			20	0.58		
N-Nitrosodi-n-propylamine	1.0	U]		20	1.0		
Nitrobenzene	1.2	U]		20	1.2		
Isophorone	0.50	U			20	0.50		
2-Nitrophenol	0.75	U			20	0.75		
2,4-Dimethylphenol	0.53	U			20	0.53		
Bis(2-chloroethoxy)methane	0.56	U	µg/l	1	20	0.56	3520C	625
2,4-Dichlorophenol	0.60	U			20	0.60		
1,2,4-Trichlorobenzene	0.71	U			20	0.71		
Naphthalene	0.73	U			20	0.73		
Hexachlorobutadiene	0.59	U			20	0.59		
4-Chloro-3-methylphenol	0.98	U			20	0.98		
Hexachlorocyclopentadiene	2.5	U			20	2.5		
2,4,6-Trichlorophenol	0.41	U			20	0.41		
Consider the Constitution of the Constitution			1				1 1	

0.58

0.48

0.51

0.70

0.57

4.5

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U

U

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U

U

2-Chloronaphthalene

Dimethyl Phthalate

2,6-Dinitrotoluene

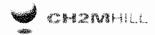
2,4-Dinitrophenol

Acenaphthene

4-Nitrophenol

Acenaphthylene

Stark Sem	ist Sam	ble 6 (cor oa Effluer e Analysis	nt Prio	rity P	ollutan er 2004	t		
Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
2,4-Dinitrotoluene	0.55	U			20	0.55		
Fluorene	0.65	U			20	0.65		
4-Chlorophenyl Phenyl Ether	0.56	U			20	0.56		
Diethyl Phthalate	0.58	U			20	0.58		
4,6-Dinitro-2-methylphenol	4.3	U	ľ		50	4.3		
N-Nitrosodiphenylamine	1.1	U			20	1.1		
1,2-Diphenylhydrazine	1.1	U			20	1.1		
4-Bromophenyl Phenyl Ether	0.55	U			20	0.55		
Hexachlorobenzene	1.3	U			20	1.3		
Pentachlorophenol (PCP)	4.9	U			50	4.9		
Phenanthrene	0.97	U			20	0.97		
Anthracene	1.3	U]		20	1.3		
Di-n-butyl Phthalate	0.73	U			20	0.73		
Fluoranthene	1.4	U	μg/l	1	20	1.4	3520C	625
Benzidine	18	U	ا ا	<u> </u>	100	18		
Pyrene	1.5	U	1		20	1.5		
Butyl Benzyl Phthalate	0.94	U	1		20	0.94		
3,3'-Dichlorobenzidine	0.54	U			50	0.54		
Benz(a)anthracene	1.2	U			20	1.2		
Chrysene	1.6	U	1		20	1.6		
Bis(2-ethylhexyl) Phthalate	3.8	U			20	3.8		
Di-n-octyl Phthalate	1.3	U			20	1.3		
Benzo(b)fluoranthene	1.2	U			20	1.2		
Benzo(k)fluoranthene	1.7	U			20	1.7		
Benzo(a)pyrene	1.4	U			20	1.4		
Indeno(1,2,3-cd)pyrene	1.4	U			20	1.4		
Dibenz(a,h)anthracene	1.6	U			20	1.6		
Benzo(g,h,i)perylene	1.7	U			20	1.7		



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23 December 2004

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Enclosed are two copies of the <u>2004 StarKist Samoa Priority Pollutant Scan</u> (September 2004 Sampling) required by Section D.2 of the NPDES permit (AS 0000019). The sampling and analysis required were completed without significant problems. These data will be used for the NPDES permit renewal application due in mid-2005.

Please call us if you have any questions or comments on the enclosed report,

Sincerely,

Karen A. Glatzel

Steven L. Costa

Cc: Steve Erickson, Del Monte Foods; Phil Thirkel, StarKist Samoa; Joe Carney, StarKist Samoa; David Wilson, CH2M HILL.

TECHNICAL MEMORANDUM



STARKIST SAMOA EFFLUENT PRIORITY POLLUTANT ANALYSIS - SEPTEMBER 2004 SAMPLING

Prepared For:

StarKist Samoa

Prepared By:

Karen Glatzel

Steve Costa

Date:

22 December 2004

Distribution:

Carl Goldstein

United States Environmental Protection Agency, Region 9

Peter Peshut

American Samoa Environmental Protection Agency

Purpose

This memorandum presents the results of the effluent priority pollutant analysis conducted for StarKist Samoa. The effluent sampling and analysis is required under StarKist Samoa's NPDES Permit (No. AS 0000019). The analyses were conducted using a 24-hr composite effluent sample collected in September 2004.

Background

StarKist Samoa must monitor treated wastewater effluent as required in its NPDES Permit, Section D. The effluent monitoring results presented in this Technical Memorandum meet the requirements of NPDES Permit Section D.2 (Priority Pollutant Scan), which is stated as follows:

The permittee shall conduct at least one priority pollutant scan of the effluent. This test shall be conducted prior to the application for renewal of the permit. Should the toxicity tests[Section D.1] indicate that the discharge causes, has a reasonable potential to cause, or contributes to non-compliance with American Samoa Water Quality Standards, ASEPA and/or USEPA may require full or partial priority pollutant scans be conducted concurrent with the required semi-annual bioassay tests.

Sampling Location

The effluent sampling location is the same as used when StarKist Samoa is sampling effluent for other tests such as the semi-annual bioassay sampling and routine discharge monitoring. It is located just downstream of the Parschal flume, prior to discharge into the joint cannery outfall.

Effluent Sampling Methods

Between 0900 on 22 September 2004 and 0600 on 23 September 2004, a 24-hour flow-weighted composite sample of final effluent was collected from the StarKist Samoa effluent discharge. Individual grab samples were collected from the permit established effluent sampling site. Detailed sampling procedures are described in the previously established SOP for cannery effluent sampling for toxicity and chemistry testing.

At each sampling time samples were collected into two 1-gallon brown glass bottles. The samples were stored on ice, or in a refrigerator, until completion of the 24-hour sampling period. After all samples were collected a flow-proportioned composite sample was prepared. The grab sample collection times, effluent flow rates, and the relative effluent flow volumes calculated from plant flow records are summarized in Table 1. The relative effluent flow volumes were used to prepare the final composite sample, which was used to fill the various sample containers shipped to the laboratory for testing.

The sample containers were packed on ice, in an ice chest, for shipment to the laboratory. A chain-of-custody form for the sample was completed and sealed into a zip-lock bag and taped inside the lid of the ice chest. The sample was shipped via DHL to the testing laboratory. The chain-of-custody form and the DHL waybill are provided in Attachment I.

Effluent Sampling Results

The results of the effluent sample analysis for priority pollutants are given in Tables 2 through 6. Table 7 provides the data qualifiers for this data set. Detailed laboratory analytical results are provided in Attachment II. Results are presented in terms of the data types: general inorganics and nutrients, metals, organochlorine pesticides and PCB's, volatiles, and semi-volatiles, in Tables 2 through 6, respectively.

Inorganics and Nutrients

With the exception of cyanide there were detected values reported for all constituents in the general category (Table 2). Nutrients included nitrogen (TKN), ammonia, and phosphorus, with reported concentrations that are in the typical range for the cannery effluent.

Metals

The effluent sample results for metals indicates that seven metals were detected as present, aluminum, barium, boron, cadmium, iron, manganese, mercury, and zinc (Table 3). Four other metals, antimony, arsenic, selenium, and titanium, were estimated (designated as B) between the method reporting limit (MRL) and the method detection limit (MDL).

Organochlorine Pesticides and PCB's

The effluent sample test results indicate two constituents in this category were detected, but at estimated concentrations, Endosulfan I and 4-4'DDE (Table 4). Both of these constituents were estimated to be at concentrations that were extremely low. All other constituents in this category were reported as not detected.

Volatile Organics and Semi-Volatile Organics

Volatile organics analysis of the effluent sample indicated that one constituent, toluene, was present at $29 \,\mu\text{g}/1$ (Table 5). Two other constituents were detected but at estimated concentrations, benzene and ethylbenzene. Benzene was estimated to be at the MDL. Ethylbenzene was estimated to be above the MDL but lower than the MRL.

Semi-volatile analysis results (Table 6) for the effluent sample resulted in one constituent being detected as present, bis(2-ethyhexyl) phthalte and five other constituents were detected but at estimated concentrations. Estimated concentrations were typically very low and closer to the MDL than the MRL.

Table 1. StarKist Samoa Effluent Composite Worksheet for NPDES Priority Pollutant Chemistry Samples 22 Sept 2004 to 23 Sept 2004

				(C)											
Grab T		Collection me	Flow Flow		Fraction of Total	Volume of sample (ml) (note: 1 gallon = 3780 ml)									
No.	(A)	(B)	GPM	MIGD	MGD	MGD	MGD	MGD	MGD	Flow	(E)	(F)	(G)	(H)	(1)
	Date	Time				3780	1000	500	250	100					
1	9/22/2004	9:00 AM	1093	1.57392	0.0856	323	86	43	21.4	8.6					
2	9/22/2004	12:00	1298	1.86912	0.1016	384	102	51	25.4	10.2					
3	9/22/2004	15:00	1618	2.32992	0.1266	479	127	63	31.7	12.7					
4	9/22/2004	18:00	1813	2.61072	0.1419	536	142	71	35.5	14.2					
5	9/22/2004	21:00	1720	2.4768	0.1346	509	135	67	33.7	13.5					
6	9/23/2004	12:00 AM	1823	2.62512	0.1427	539	143	71	35.7	14.3					
7	9/23/2004	3:00	1821	2.62224	0.1425	539	143	71	35.6	14.3					
8	9/23/2004	6:00	1590	2.28960	0.1245	470	124	62	31.1	12.4					
		Totals:		18.39744	1.0000	3780	1000	500	250	100					

Table 2.
StarKist Samoa Effluent Priority Pollutant General Constituents Analysis
September 2004

Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
Bromide	21.1	=		100	20	6		300.0
Sulfate	933			500	100	45		300.0
Cyanide	0.003	U		1	0.01	0.003	N/A	335.2
Chemical Oxygen Demand	1400			2	100	100		410.1
MBAS	0.07	ELLER CONTRACTOR		1	0.05	0.03		425.1
Solids, Total Suspended	62	=		1	5	5		160.2
Phenolics, Total	0.32	=		1	0.01	0.003		420.1
Carbon, Total Organic	214		mg/l	50	25	3.5	19/7	415.1
Sulfite	55	=		1	2	0.3		377.1
Sulfide, Total	4.87			4	. 0.2	0.024		376.2
Ammonia as Nitrogen	37.6=			25	1.3	0.75		350.1
Nitrogen, Total Kjeldahl (TKN)	64.1=			25	3.0	1.75		351.4
Phosphorus, Total	11.6	11.6=		25	0.3	0.075		365.3
Oil and Grease, Total	8	=		1	5.0	0.64		1664

Table 3.
StarKist Samoa Effluent Priority Pollutant Metals Analysis
September 2004

Constituent	=	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
Aluminum		918	=		1	50	40		6010B
Antimony		44.5	В		1	50	40		6010B
Arsenic	-	17.5	В		5	25.0	5.0		7060A
Barium		5.5	=		. 1	5.0	2.0		6010B
Berylllium	0.4	Course of the Co	U		1	5.0	0.4		6010B
Boron	atar et a tituren yn e t	1820			1	. 50	20		6010B
Cadmium	the second section of the	8.6	The second state of the se		1	5.0	5.0		6010B
Chromium	3.0		U		1	5.0	3.0		6010B
Cobalt	5.0	is the second section is the	U		1	10.0	5.0		6010B
Copper	4.0		U		1	10.0	4.0		6010B
Iron	en de some en some	321	E (markin markini	mg/l	1	20.0	20.0	N/A	6010B
Lead	2.0	no como mentro escacio	U	ing/	2	4.0	2.0		7421
Manganese		22.0			1	5.0	2.0		6010B
Mercury	000 to 5 14000000	0.27	=		1	0.20	0.04		7470A
Molybdenum	9.0		U		1	10.0	9.0		6010B
Nickel	20		U		1	20	20		6010B
Selenium		5.6	В		5	25.0	5.0		7740
Silver	5.0	P 100	U		1	10.0	5.0		6010B
Thallium	5.0	and the second s	U Bulli to accombine and accombination		5	25.0	5.0		7841
Tin	50	1647-0-1006	U		1	50	50		6010B
Titanium		6.1	В		1	10.0	2.0		6010B
Zinc		260	=		1	10.0	2.0		6010B

Table 4. StarKist Samoa Effluent Priority Pollutant Organochlorine Pesticides and Polychlorinated Biphenyls Analysis September 2004								
Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
alpha-BHC	0.052	U, i		5	0.052	0.052		
beta-BHC	0.013	U	ĺ	5	0.052	0.013		
gamma-BHC	0.052		}	_				
(Lindane)	İ	U, i	l	5	0.052	0.052		
delta-BHC	0.0072	U	l	5	0.052	0.0072	l	
Heptachlor	0.015	U, i	1	5	0.052	0.015		
Aldrin	0.052	U, i		5	0.052	0.052	l i	
Heptachlor Epoxide	0.0045	U	\	5	0.052	0.0045		
Endosulfan I	and the second second section of the second section se	4J,P,D	}	5	0.052 0.052	0.0031 0.0035		
Dieldrin	0.0035	U	1	5 5	0.052	0.0035		
4,4'-DDE	0.0072	2J,P,D		5	0.052	0.0072		
Endrin Endosulfan II	0.0072	U	1	5	0.052	0.0072		
4.4'-DDD	0.0097	U	μg/l	5	0.052	0.0097	EPA	608M
CONTRACTOR OF THE PROPERTY OF	0.0062	U	pg/i	5	0.052	0.0062	3520C	000111
Endrin Aldehyde Endosulfan Sulfate	0.0002	U	1	5	0.052	0.0002		
4,4'-DDT	0.0073	Ü		5	0.052	0.0073		
Toxaphene	0.92	U	ł	5	5.2	0.92		
Chlordane	0.29	U	•	5	5.2	0.29		
Aroclor 1016	0.11	U		1	1.1	0.11		
Aroclor	0.066	Ū		1	1.1	0.066		
Aroclor 1232	0.044	Ū		1	1.1	0.044		
Aroclor 1242	0.086	Ū		1	1.1	0.086		
Aroclor 1248	0.018	U		1	1.1	0.018		
Aroclor 1254	0.0086	Ú		1	1.1	0.0086		
Aroclor 1260	0.022	U	1	1	1.1	0.022		

Table 5. StarKist Samoa Effluent Priority Pollutant Volatile Organic Analysis September 2004.								
Constituent	Result	Result Notes (see Table 7)	Units	Dilution Factor	Method Reporting Limit	Method Detection Limit	Extraction Method	Analysis Method
Chloromethane	0.31	U			5.0	0.31		
Vinyl Chloride	0.58	U			5.0	0.58		1 1
Bromomethane	0.81	U			5.0	0.81		
Chloroethane	0.46	U			5.0	0.46		
Trichlorofluoromethane (CFC 11)	and the second second	U			5.0	0.49		{
1,1-Dichloroethene (1,1-DCE)	0.48	U			5.0	0.48		
Dichloromethane (Methylene								
Chloride)	0.21	U			5.0	0.21		
trans-1,2-Dichloroethene		U		1 1	5.0	0.19		
1,1-Dichloroethane (1,1-DCA)		U			5.0	0.34		
Chloroform	0.21	U			5.0	0.21		1 1
1,1,1-Trichloroethane (TCA)		U			5.0	0.45		1
Carbon Tetrachloride	M. Carrier and Physics Communication	U			5.0	0.38		
Benzene	0.27				5.0	0.27		1 1
1,2-Dichloroethane (EDC)		U			5.0	0.12		1 1
Trichloroethene (TCE)	0.46	U			5.0	0.46		
1,2-Dichloropropane	and the section of th	U			5.0	0.19	none	624
Bromodichloromethane	and the resemble of the second	U	μg/l	1 1	5.0	0.17	none	024
2-Chloroethyl Vinyl Ether		U		1 1	10.0	0.62 0.17		1 1
trans-1,3-Dichloropropene	0.17	U		1	5.0 5.0	0.17		
Toluene	0.17	U			5.0	0.23		1 1
cis-1,3-Dichloropropene		U			5.0	0.17		
1,1,2-Trichloroethane		U			5.0	0.43		
Tetrachloroethene (PCE)	0.43	U			5.0	0.45		1 1
Dibromochloromethane		11						
Chlorobenzene					5.0	0.18		1 1
Ethylbenzene	1.6				5.0	0.33		
Bromoform	er en en en	U			5.0	0.28	!	
1,1,2,2-Tetrachloroethane	Alle Comments of the Assessment	<u>U</u>			5.0	0.25		
1,3-Dichlorobenzene	0.17 U				5.0	0.17		
1,4-Dichlorobenzene	0.17	U			5.0	0.17		
1,2-Dichlorobenzene	0.19	U			5.0	0.19		
Acrolein	4.3	U			50	4.3		
Acrylonitrile	0.45	U			10	0.45		

Table 6. StarKist Samoa Effluent Priority Pollutant Semi-Volatile Analysis, September 2004									
Constituent	Result	Result Notes	(see lable /)	Units	Dilution Factor Method Reporting Limit		Method Detection Limit	Extraction Method	Analysis Method
N-Nitrosodimethylamine	1.49	U				26	1.49		
Bis(2-chloroethyl) Ether	0.34	U	- 1			11	0.34		
Phenol	3	00 D	- 1			52	1.7		
2-Chlorophenol	0.32	U	- 1			11	0.32		
1,3-Dichlorobenzene	0.36	U				11	0.36		
1,4-Dichlorobenzene	0.33	U				11	0.33		
1,2-Dichlorobenzene	0.44	U				11	0.44	1	
Bis(2-chloroisopropyl) Ether	0.32	U	7			11	0.32		
Hexachloroethane	0.30	U				11	0.30		
N-Nitrosodi-n-propylamine	0.51	U				11	0.51	}	
Nitrobenzene	0.58	U				11	0.58		
Isophorone	0.26	U				11	0.26		
2-Nitrophenol	0.39	U				11	0.39		
2,4-Dimethylphenol	0.27	U				11	0.27		
Bis(2-chloroethoxy)methane	0.29	U		µg/l	1	11	0.29	3520C	625
2,4-Dichlorophenol	0.31	U				11	0.31		
1,2,4-Trichlorobenzene	0.37	U				11	0.37	1 1	
Naphthalene		3.6J				11	0.38		
Hexachlorobutadiene	0.30	U				11	0.30		
4-Chloro-3-methylphenol	0.50	U				11	0.50		
Hexachlorocyclopentadiene	1.3	U				11	1.3		
2,4,6-Trichlorophenol	0.21	U				. 11	0.21		
2-Chloronaphthalene	0.30	U				11	0.30		
Acenaphthylene	0.25	U				11	0.25		
Dimethyl Phthalate	0.26	U.				11	0.26		
2,6-Dinitrotoluene	0.36	U				11	0.36		
Acenaphthene	0.29	U				11	0.29		
2,4-Dinitrophenol	2.3	U				26	2.3		
4-Nitrophenol	2.0	U				26	2.0		

Table 6 (continued). StarKist Samoa Effluent Priority Pollutant Semi-Volatile Analysis, September 2004 Result Notes (see Table 7) Extraction Method Dilution Factor Method Reporting Limit Detection Limit Analysis Method Method Result Units Constituent 0.28 0.28 11 2,4-Dinitrotoluene 1.3J 11 0.33 Fluorene 0.29 4-Chlorophenyl Phenyl Ether 0.29 11 0.30 0.30 U 11 Diethyl Phthalate 2.2 26 2.2 4,6-Dinitro-2-methylphenol U 0.54 0.54 U 11 N-Nitrosodiphenylamine 0.52 1,2-Diphenylhydrazine 0.52 U 11 U 0.28 0.28 11 4-Bromophenyl Phenyl Ether 0.65 U 11 0.65 Hexachlorobenzene 2.5 U 26 2.5 Pentachlorophenol (PCP) 1.8J 0.50 11 Phenanthrene 0.63 0.63 11 Anthracene 11 0.38 0.58J Di-n-butyl Phthalate 0.67 0.67 U 11 Fluoranthene 3520C 625 μg/l 1 9.0 9.0 U 52 Benzidine 0.75 U 11 0.75 Pyrene 11 0.48 0.48 U Butyl Benzyl Phthalate 0.28 U 26 0.28 3.3'-Dichlorobenzidine 0.61 U 0.61 11 Benz(a)anthracene 0.81 U 11 0.81 Chrysene 2.0 14= 11 Bis(2-ethylhexyl) Phthalate 11 0.64 0.64 U Di-n-octyl Phthalate 0.60 U 11 0.60 Benzo(b)fluoranthene 0.85 0.85 U 11 Benzo(k)fluoranthene 0.67 0.67 U 11 Benzo(a)pyrene U 11 0.70 0.70 Indeno(1,2,3-cd)pyrene U 0.77 0.77 11 Dibenz(a,h)anthracene

U

0.83

Benzo(g,h,i)perylene

11

0.83

Table 7.
Data Qualifiers for StarKist Samoa Priority Pollutant Analysis
September 2004

Constituents	Symbol	Interpretation					
	=	Value of constituent with no qualifiers.					
All	U	The compound was analyzed for, but was not detected at or above the MRL/MDL (Method Reporting Limit or the Method Detection Limit					
Metals	В	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL					
	i	The MRL/MDL has been elevated due to a chromatographic interference					
	J	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL					
Organics	Р	The GC or HPLC confirmation criteria was exceeded. The relative difference is greater than 40% between the two analytical results (25% for CLP pesticides)					
	D	The reported result is from a dilution.					

ATTACHMENT I Chain-of-Custody

Columbia Analytical Services Inc.

CHAIN OF CUSTODY

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ATTACHMENT II

Effluent Laboratory Results Columbia Analytical Services



November 10, 2004

Service Request No: K2407650

Steve Costa CH2M HILL PO BOX 1238 Trinidad, CA 95570-1238

RE: Joint Cannery Outfall -Streams / 147323.JC.04.TW

Dear Steve:

Enclosed are the results of the sample(s) submitted to our laboratory on September 30, 2004. For your reference, these analyses have been assigned our service request number K2407650.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAC standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3260.

Respectfully submitted,

Columbia Analytical Services, Inc.

Harvey Jack

Project Chemist

HJ/jeb

Page 1 of 132

Acronyms

ASTM American Society for Testing and Materials

A2LA American Association for Laboratory Accreditation

CARB California Air Resources Board

CAS Number Chemical Abstract Service registry Number

CFC Chlorofluorocarbon
CFU Colony-Forming Unit

DEC Department of Environmental Conservation

DEQ Department of Environmental Quality

DHS Department of Health Services

DOE Department of Ecology
DOH Department of Health

EPA U. S. Environmental Protection Agency

ELAP Environmental Laboratory Accreditation Program

GC Gas Chromatography

GC/MS Gas Chromatography/Mass Spectrometry

LUFT Leaking Underground Fuel Tank

M Modified

MCL Maximum Contaminant Level is the highest permissible concentration of a

substance allowed in drinking water as established by the USEPA.

MDL Method Detection Limit
MPN Most Probable Number
MRL Method Reporting Limit

NA Not Applicable
NC Not Calculated

NCASI National Council of the Paper Industry for Air and Stream Improvement

ND Not Detected

NIOSH National Institute for Occupational Safety and Health

POL Practical Quantitation Limit

RCRA Resource Conservation and Recovery Act

SIM Selected Ion Monitoring

TPH Total Petroleum Hydrocarbons

tr Trace level is the concentration of an analyte that is less than the PQL but greater

than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- i The MRL/MDL has been elevated due to a matrix interference.
- X See case narrative.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- B The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike
- i The MRL/MDL has been elevated due to a matrix interference.
- X See case narrative.
- * The duplicate analysis not within control limits. See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results (25% for CLP Pesticides).
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- i The MRL/MDL has been elevated due to a chromatographic interference.
- X See case narrative.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

Case Narrative

Client:

CH2M Hill

Service Request No.:

K2407650

Project: Sample Matrix:

Joint Cannery Outfall - Streams / 147323.JC.04.TWDate Received:

9/30/04

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier III validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two water samples were received for analysis at Columbia Analytical Services on 9/30/04. The following discrepancies were noted upon initial sample inspection. The temperatures of the shipping coolers were above the upper recommended limit of 6 °C. The exceptions are also noted on the cooler receipt and preservation form included in this data package. Except as noted, the samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

General Chemistry Parameters

Bromide by EPA Method 300.0:

The reporting limit is elevated for Bromide in sample COS-PP04 because the sample required dilution. The chromatogram indicated the presence of non-target background components (i.e. Chloride) that prevented adequate resolution of the target analyte at the reporting limit. The result is flagged to indicate the matrix interference.

Total Phosphorus by EPA Method 365.3:

The matrix spike recovery of Phosphorus for sample SKS-PP04 was outside control criteria because of suspected matrix interference. A Matrix Spike Duplicate (MSD) was also analyzed, but produced similar results. The results of the original analysis are reported. No further corrective action was appropriate.

Total Phenolics by EPA Method 420.1:

The matrix spike recovery of Phenolics for sample Batch QC was outside control criteria because of suspected matrix interference. A Matrix Spike Duplicate (MSD) was also analyzed, but produced similar results. The results of the original analysis are reported. No further corrective action was appropriate.

Total Metals

No anomalies associated with the analysis of these samples were observed.

Oil and Grease by EPA Method 1664

Matrix Spike Recovery Exceptions:

The matrix spike recovery of Oil and Grease, Total (HEM) for sample Batch QC is not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. No further corrective action was appropriate

Date 11/16/04 Approved by

Organochlorine Pesticides and PCBs by EPA Method 608

Holding Time Exceptions:

Samples SKS-PP04 and CO5-PP04 were received with insufficient hold time remaining to complete the analysis within the recommended limit. The analysis was performed as soon as possible after receipt by the laboratory. The data is flagged to indicate the holding time violation.

Continuing Calibration Verification (CCV) Exceptions:

The analysis of Chlorinated Pesticides and PCB Aroclors by EPA 608 requires the use of dual column confirmation. When the CCV criteria are met for both columns, the higher of the two sample results is generally reported. The primary evaluation criteria were not met on the confirmation column for CCV 1025F018, 1025F041, and 1025F043 Endosulfan Sulfate, Decachlorbiphenyl, Endosulfan II, Endrin Aldehyde, Heptachlor, and/or Chlordane. The results are reported from the column with an acceptable CCV. The data quality is not affected. No further corrective action was appropriate.

Sample Confirmation Notes:

Flag JP: The confirmation comparison criteria are not applicable because at least one of the values is below the Method Reporting Limit (MRL).

Elevated Method Reporting Limits:

The reporting limit is elevated for all analytes in all samples. The sample extract was diluted prior to instrumental analysis due to relatively high levels of non-target background components. Clean-up of the extract was performed within the scope of the method, but did not eliminate enough of the background components to prevent dilution. A semiquantitative screen was performed prior to final analysis. The results of the screening indicated the need to perform a dilution. The results are flagged to indicate the matrix interference.

The reporting limit is further elevated for few analytes in all samples. The chromatogram indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compounds at the reporting limit. The results are flagged to indicate the matrix interference.

The MDL is elevated for 4,4'-DDE in sample Method Blank KWG0415263-3. The chromatogram indicated the presence of non-target background components, which were apparently introduced as laboratory artifacts. The contamination prevented adequate resolution of the target compounds at the MDL. Note the level of background was relatively low compared to the MDL, so the affect on the results was minimal. The results are flagged to indicate the anomaly.

Volatile Organic Compounds by EPA Method 624

Surrogate Exceptions:

The control criteria were exceeded for the following surrogate in sample COS-PP04 and Batch QC due to matrix interferences: 4-Bromofluorobenzene. A reanalysis was performed, but produced similar results. The results of the original analysis are reported. No further corrective action was required.

Matrix Spike Recovery Exceptions:

The matrix spike recovery(ies) of 1,1-Dichloroethene and Benzene for sample Batch QCMS and Batch QCDMS were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential high bias in this matrix. No further corrective action was appropriate.

The matrix spike recovery(ies) of Toluene, Chlorobenzene, and 1,2-Dichlorobenzene for sample Batch QCDMS were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential high bias in this matrix. No further corrective action was appropriate.

Approved by	Date	11/16/64

Laboratory Control Sample (LCS) Exceptions:

The advisory criterion was exceeded for the following analyte in Laboratory Control Sample (LCS) KWG0416904-1: Acrylonitrile. As per the CAS/Kelso Standard Operating Procedure (SOP) for this method, these compounds are not included in the subset of analyte used to control the analysis. The recovery information reported for this analyte is for advisory purposes only (i.e. to provide additional detail related to the performance of each individual compound). No further corrective action was required.

Relative Percent Difference (RPD) Exceptions:

The RPD for the following analytes in the replicate LCS analyses (kwg0416904-1 and kwg0416904-2) was outside control criteria: 2-Chloroethyl Vinyl Ether. Analysis of samples associated with this LCS/DLCS resulted in no hits for this compound. The data is flagged to indicate the anomaly.

Semivolatile Organic Compounds by EPA Method 625

Holding Time Exceptions:

Samples SKS-PP04 and COS-PP04 were received past the recommended holding time. The analysis was performed as soon as possible after receipt by the laboratory. The data is flagged to indicate the holding time anomaly.

Second Source Exceptions:

The upper control criterion was exceeded for Benzidine in Initial Calibration Verification (ICV) MS07/1006G002.D:. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

The upper control criterion was exceeded for Benzidine in Initial Calibration Verification (ICV) MS07/1012F016.D:. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was required.

Continuing Calibration Verification (CCV) Exceptions:

The upper control criterion was exceeded for Benzidene in CCV MS07\1013F002.D. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem equates to a potential high bias, the data quality is not affected. No further corrective action was appropriate.

Date_ 11/16/64

Approved by

General Chemistry Parameters

Analytical Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW Sample Matrix: WATER

Service Request: K2407650 Date Collected: 09/23/04

Date Received: 09/30/04

Bromide

Units: mg/L (ppm)

Basis: NA

Analysis Method 300.0

Test Notes:

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	20	6	100	10/05/04	21.1	
Method Blank	K2407650-MB	0.2	0.06	1	10/05/04	ND	

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: NA

Date Received: NA

Date Extracted: NA

Date Analyzed: 10/05/04

Duplicate Summary Inorganic Parameters

Sample Name: Batch QC

Lab Code:

K2407737-001DUP

Test Notes:

Units: mg/L (ppm)

Basis: NA

Analysis Method

Result

Duplicate Sample Sample Result

Relative

Percent Result Average Difference Notes

Bromide

Analyte

300.0

0.2

MRL

ND

ND

ND

Report By: AYaple

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number:

147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: NA

Date Received: NA

Date Extracted: NA

Date Analyzed: 10/05/04

Matrix Spike Summary **Inorganic Parameters**

0.2

4.0

300.0

Sample Name:

Batch QC

Lab Code:

Test Notes:

K2407737-001MS

Units: mg/L (ppm) Basis: NA

108

90-110

Analyte

Bromide

CAS Percent Spiked Recovery Analysis Spike Sample Sample Percent Acceptance Result Method MRL Level Result Result Recovery Limits Notes

4.3

ND

QA/QC Report

Client: Project Name: CH2M Hill

Joint Cannery Outfall -Streams

Project Number:

147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: NA

Date Received: NA

Date Extracted: NA

Date Analyzed: 10/05/04

Laboratory Control Sample Summary **Inorganic Parameters**

Sample Name:

Laboratory Control Sample

Lab Code:

K2407650-LCS

Units:

mg/L (ppm)

Basis: NA

Test Notes:

Prep Method

None

Analysis Method

True Value Result Recovery

Percent Acceptance Limits

CAS Percent Recovery

> Result Notes

Bromide

Analyte

300.0

4.0

4.3

108

90-110

QA/QC Report

Client: CH2M Hill

Project: Joint Cannery Outfall -Streams

Service Request: K2407650

Date Collected: NA
Date Received: NA

Bromide EPA Method 300.0 Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

_	Date	True	Measured	Percent
	Analyzed	Value	Value	Recovery
CCV1 Result	10/05/04	2.0	1.8	90
CCV2 Result	10/05/04	2.0	1.8	90
CCV3 Result	10/05/04	2.0	1.9	95
CCV4 Result	10/05/04	2.0	1.9	95
CCV5 Result	10/05/04	2.0	1.8	90
CCV6 Result	10/05/04	2.0	1.8	90
CCV7 Result	10/05/04	2.0	1.8	90
CCV8 Result	10/05/04	2.0	1.9	95

CONTINUING CALIBRATION BLANK (CCB)

	Date		Blank
	Analyzed	MRL	Value
CCB1 Result	10/05/04	0.2	ND
CCB2 Result	10/05/04	0.2	ND
CCB3 Result	10/05/04	0.2	ND
CCB4 Result	10/05/04	0.2	ND
CCB5 Result	10/05/04	0.2	ND
CCB6 Result	10/05/04	0.2	ND
CCB7 Result	10/05/04	0.2	ND
CCB8 Result	10/05/04	0.2	ND

Analytical Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix: WATER

Service Request: K2407650 Date Collected: 09/23/04

Date Received: 09/30/04

Sulfate

Units: mg/L (ppm)

Basis: NA

Analysis Method 300.0

Test Notes:

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	100	45	500	10/05/04	933	
Method Blank	K2407650-MB	0.2	0.09	1	10/05/04	ND	

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: NA

Date Received: NA

Date Extracted: NA

Date Analyzed: 10/05/04

Duplicate Summary Inorganic Parameters

Sample Name:

Batch QC

Lab Code:

K2407737-001DUP

Test Notes:

Units: mg/L (ppm)

Basis: NA

Duplicate Relative Analysis Sample Sample Percent Result Analyte Method MRL Result Result Average Difference Notes 300.0 0.2 0.6 0.7 Sulfate 0.7 14

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: NA

Date Received: NA Date Extracted: NA

Date Analyzed: 10/05/04

Matrix Spike Summary **Inorganic Parameters**

Sample Name:

Batch QC

Lab Code:

K2407737-001MS

Test Notes:

Units: mg/L (ppm)

Basis: NA

CAS

Analyte

Sulfate

Percent Spiked Recovery Spike Sample Sample Percent Acceptance Result Analysis Method MRL Level Result Result Recovery Limits 300.0 4.0 0.6 80-120 0.2 4.3 93

QA/QC Report

Client: Project Name: CH2M Hill

Joint Cannery Outfall -Streams

Project Number:

147323.JC.04.TW

Sample Matrix: WATER Service Request: K2407650

Date Collected:

NA Date Received: NA Date Extracted: NA

10/05/04 Date Analyzed:

Laboratory Control Sample Summary **Inorganic Parameters**

Sample Name:

Laboratory Control Sample

Lab Code:

K2407650-LCS

Test Notes:

Units:

mg/L (ppm)

Basis: NA

> CAS Percent Recovery

Analyte

Prep Method Analysis Method

True Value Result Recovery

Percent Acceptance Limits

Result Notes

Sulfate

None 300.0

5.0

4.7

90-110

94

QA/QC Report

Client: CH2M Hill

Project: Joint Cannery Outfall -Streams

Service Request: K2407650

Date Collected: NA
Date Received: NA

Sulfate EPA Method 300.0 Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date	True	Measured	Percent
	Analyzed	Value	Value	Recovery
CCV1 Result	10/05/04	5.0	4.7	94
CCV2 Result	10/05/04	5.0	4.8	96
CCV3 Result	10/05/04	5.0	4.8	. 96
CCV4 Result	10/05/04	5.0	4.7	94
_ CCV5 Result	10/05/04	5.0	4.7	94
CCV6 Result	10/05/04	5.0	4.8	96
CCV7 Result	10/05/04	5.0	4.8	96
CCV8 Result	10/05/04	5.0	4.8	96

CONTINUING CALIBRATION BLANK (CCB)

	Date		Blank
	Analyzed	MRL	Value
CCB1 Result	10/05/04	0.2	ND
CCB2 Result	10/05/04	0.2	ND
CCB3 Result	10/05/04	0.2	ND
CCB4 Result	10/05/04	0.2	ND
CCB5 Result	10/05/04	0.2	ND
CCB6 Result	10/05/04	0.2	ND
CCB7 Result	10/05/04	0.2	ND
CCB8 Result	10/05/04	0.2	ND

Analytical Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix: WATER

Service Request: K2407650 Date Collected: 09/23/04

Date Received: 09/30/04

Cyanide, Total

Units: mg/L (ppm)

Basis: NA

Analysis Method 335.2

Test Notes:

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	0.01	0.003	. 1	10/05/04	ND	
Method Blank	K2407650-MB	0.01	0.003	1	10/05/04	ND	

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: NA

Date Received: NA

Date Extracted: NA Date Analyzed: 10/05/04

Units: mg/L (ppm)

Basis: NA

Duplicate Summary Inorganic Parameters

Sample Name:

Batch QC

Lab Code:

K2407645-001DUP

Test Notes:

Duplicate Relative

Analysis Sample Sample Percent Result Average Difference Notes Analyte Method MRL Result Result 335.2 0.01 Cyanide, Total ND ND ND

QA/QC Report

Client :

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: NA

Date Received: NA

Date Extracted: NA Date Analyzed: 10/05/04

Matrix Spike Summary **Inorganic Parameters**

Sample Name:

Batch QC

Lab Code: Test Notes:

K2407645-001MS

Units: mg/L (ppm)

CAS

Basis: NA

	Analysis		Spike	Sample	Spiked	Dawcont	Percent Recovery Acceptance	Dagult
Analyte	Method	MRL	Level	Result		Recovery	•	Notes
Cyanide, Total	335.2	0.01	0.10	ND	0.10	100	75-125	

QA/QC Report

Client:

CH2M Hill

Project Name : J

Joint Cannery Outfall -Streams

Project Number:

147323.JC.04.TW

Sample Matrix: WATER

Service Request: K2407650

Date Collected:

: NA : NA

Date Received :

Date Extracted: NA

Date Analyzed: 10/05/04

Laboratory Control Sample Summary Inorganic Parameters

Sample Name:

Laboratory Control Sample

Lab Code:

K2407650-LCS

Test Notes:

Units: mg/L (ppm)

Basis: NA

CAS Percent Recovery Prep Analysis Percent Acceptance Result Method Method True Value Result Recovery Limits Notes Analyte 335.2 0.52 0.49 94 85-115 Cyanide, Total None

QA/QC Report

Client: CH2M Hill

Project: Joint Cannery Outfall -Streams

Service Request: K2407650

Date Collected: NA
Date Received: NA

Cyanide, Total EPA Method 335.2 Units: ug/L (ppb)

CONTINUING CALIBRATION VERIFICATION (CCV)

_	Date	True	Measured	Percent
	Analyzed	Value	Value	Recovery
CCV1 Result	10/07/04	100	105	105
CCV1 Result	10/07/04	100	98	98
CCV2 Result	10/07/04	100	105	105
CCV2 Result	10/07/04	100	99	99
CCV3 Result	10/07/04	. 100	103	103
CCV3 Result	10/07/04	100	98	98
CCV4 Result	10/07/04	100	101	101
CCV4 Result	10/07/04	100	92	92
CCV5 Result	10/07/04	100	98	98

CONTINUING CALIBRATION BLANK (CCB)

_			
	Date		Blank
-	Analyzed	MRL	Value
CCB1 Result	10/07/04	10	ND
CCB1 Result	10/07/04	10	ND
CCB2 Result	10/07/04	10	ND
CCB2 Result	10/07/04	10	ND
CCB3 Result	10/07/04	10	ND
CCB3 Result	10/07/04	10	ND
CCB4 Result	10/07/04	10	ND
CCB4 Result	10/07/04	10	ND
CCB5 Result	10/07/04	10	ND

Analytical Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix: WATER

Service Request: K2407650

Date Collected: 09/23/04

Date Received: 09/30/04

Chemical Oxygen Demand

Units: mg/L (ppm) Basis: NA

Analysis Method 410.1

Test Notes:

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	100	100	2	10/11/04	1400	
Method Blank	K2407650-MB	50	50	1 .	10/11/04	ND	

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650 Date Collected: 09/23/04

Date Received: 09/30/04

Date Extracted: NA Date Analyzed: 10/11/04

Duplicate Summary Inorganic Parameters

Sample Name:

COS-PP04

Lab Code:

K2407650-002DUP

Test Notes:

Analyte

Duplicate Relative Sample Sample Percent Result Analysis

Method 410.1

100

MRL

1020

Result

Result 1090

1060

Units: mg/L (ppm)

Basis: NA

Average Difference Notes

7

Chemical Oxygen Demand

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650 Date Collected: 09/23/04

Date Received: 09/30/04 Date Extracted: NA

Date Analyzed: 10/11/04

Matrix Spike Summary **Inorganic Parameters**

Sample Name:

COS-PP04

Lab Code:

Test Notes:

K2407650-002MS

Units: mg/L (ppm) Basis: NA

Analyte

Analysis Method

Spike Level MRL

Sample Result

Spiked Result Recovery

Recovery Sample Percent Acceptance Result Limits

Notes

Chemical Oxygen Demand

410.1

130

1000

1020

2050.

103

75-125

CAS Percent

QA/QC Report

Client:

CH2M Hill

Service Request: K2407650

Project Name: Project Number: Joint Cannery Outfall -Streams 147323.JC.04.TW

Date Received:

Date Collected: NA NA

Sample Matrix:

WATER

Date Extracted:

NA Date Analyzed: 10/11/04

Laboratory Control Sample Summary **Inorganic Parameters**

Sample Name:

Laboratory Control Sample

Units: mg/L (ppm)

Lab Code:

K2407650-LCS

Basis: NA

Test Notes:

Percent Recovery

CAS

Analyte

Prep Method

Analysis Method

True Value Result Recovery

Percent Acceptance Limits

Chemical Oxygen Demand

410.1 None

342

327

96

85-115

Result

Notes

Analytical Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix: WATER

Service Request: K2407650 Date Collected: 09/23/04

Date Received: 09/30/04

Ammonia as Nitrogen

Units: mg/L (ppm)

Basis: NA

Analysis Method 350.1

Test Notes:

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	1.3	0.75	25	10/01/04	37.6	
Method Blank	K2407650-MB	0.05	0.03	1	10/01/04	ND	

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: NA

Date Received: NA

Date Extracted: NA

Date Analyzed: 10/01/04

Duplicate Summary Inorganic Parameters

Sample Name:

Batch QC

Lab Code:

K2407645-002DUP

Test Notes:

Units: mg/L (ppm)

Basis: NA

	4 45	Duplicate			Relative			
	Analysis		Sample	Sample		Percent	Result	Result
Analyte	Method	MRL	Result	Result	Average	Difference	Notes	
Ammonia as Nitrogen	350.1	1.3	32.0	33.5	32.8	5		

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: NA

Date Received: NA Date Extracted: NA

Date Analyzed: 10/01/04

Matrix Spike Summary **Inorganic Parameters**

Sample Name:

Batch QC

Lab Code:

K2407645-002MS

Test Notes:

Units: mg/L (ppm)

Basis: NA

					Spiked		Percent Recovery	
Analyte	Analysis Method	MRL	Spike Level	Sample Result	Sample	Percent Recovery	Acceptance Limits	Result Notes
Ammonia as Nitrogen	350.1	1.3	50.0	32.0	84.9	106	90-110	

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: Sample Matrix:

WATER

147323.JC.04.TW

Service Request:

K2407650

Date Collected:

NA

Date Received: NA

Date Extracted: NA

Date Analyzed:

10/01/04

Laboratory Control Sample Summary Inorganic Parameters

Sample Name:

Laboratory Control Sample

Lab Code:

K2407650-LCS

Units:

mg/L (ppm)

Basis: NA

Test Notes:

Analyte

Prep Method

Analysis Method

True Value Result Recovery

Percent Acceptance Limits

CAS Percent Recovery

> Result Notes

Ammonia as Nitrogen

None

350.1

4.84

4.64

96

90-110

QA/QC Report

Client: CH2M Hill

Project: Joint Cannery Outfall -Streams

Service Request: K2407650

Date Collected: NA
Date Received: NA

Ammonia as Nitrogen EPA Method 350.1 Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

_	Date	True	Measured	Percent		
	Analyzed	Value	Value	Recovery		
COLUMN TO A	10/01/04	2.00	1.00	0.7		
CCV1 Result	10/01/04	2.00	1.93	97		
CCV2 Result	10/01/04	2.00	1.96	98		
CCV3 Result	10/01/04	2.00	1.93	97		
CCV4 Result	10/01/04	2.00	1.96	98		
CCV5 Result	10/01/04	2.00	1.97	99		
CCV6 Result	10/01/04	2.00	1.94	. 97		
CCV7 Result	10/01/04	2.00	1.95	98		
CCV9 Result	10/01/04	2.00	2.01	101		
CCV10 Result	10/01/04	2.00	2.03	102		
CCV11 Result	10/01/04	2.00	1.98	99		
CCV12 Result	10/01/04	2.00	1.99	100		

CONTINUING CALIBRATION BLANK (CCB)

	Date	Blank		
	Analyzed	MRL	Value	
CCB1 Result	10/01/04	0.05	ND	
CCB2 Result	10/01/04	0.05	ND	
CCB3 Result	10/01/04	0.05	ND	
CCB4 Result	10/01/04	0.05	ND	
CCB5 Result	10/01/04	0.05	ND	
CCB6 Result	10/01/04	0.05	ND	
CCB7 Result	10/01/04	0.05	ND	
CCB9 Result	10/01/04	0.05	ND	
_CCB10 Result	10/01/04	0.05	ND	
CCB11 Result	10/01/04	0.05	ND	
CCB12 Result	10/01/04	0.05	ND	

Analytical Report

Client: Project Name : CH2M Hill

Joint Cannery Outfall -Streams

Service Request: K2407650 Date Collected: 09/23/04

Project Number: 147323.JC.04.TW Sample Matrix:

WATER

Date Received: 09/30/04

Methylene Blue Active Substances (MBAS)

Units: mg/L (ppm) Basis: NA

Analysis Method 425.1

Test Notes:

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	0.05	0.03	1	10/06/04	0.07	x
Method Blank	K2407650-MB	0.05	0.03	1	10/02/04	ND	
Method Blank	K2407650-MB	0.05	0.03	1	10/06/04	ND	

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix: WATER

Service Request: K2407650

Date Collected: NA

Date Received: NA

Date Extracted: NA

Date Analyzed: 10/02/04

Duplicate Summary Inorganic Parameters

Sample Name:

Batch QC

Lab Code:

K2407645-001DUP

Test Notes:

Units: mg/L (ppm)

Basis: NA

				Duplicate			Relative		
Analyte	Analysis Method	MRL	Sample Result	Sample Result	Average	Percent Difference			
Methylene Blue Active Substances (MBAS)	425.1	0.5	0.7	0.7	0.7	<1	X		

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: 09/23/04

Date Received: 09/30/04

Date Extracted: NA

Date Analyzed: 10/06/04

Duplicate Summary Inorganic Parameters

Sample Name: Lab Code:

SKS-PP04

K2407650-001DUP

Test Notes:

Units: mg/L (ppm)

Basis: NA

Analyte

Analysis Method

MRL Result

Duplicate Sample Sample

Relative Percent Result Result Average Difference Notes

<1

Methylene Blue Active Substances (MBAS)

425.1

0.05

0.07

0.07

0.07

X

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: NA

Date Received: NA

Date Extracted: NA

Date Analyzed: 10/02/04

CAS

Matrix Spike Summary **Inorganic Parameters**

Sample Name:

Batch QC

Lab Code:

K2407645-001MS

Test Notes:

Units: mg/L (ppm)

Basis: NA

Percent Spiked Recovery Sample Percent Acceptance Result Analysis Spike Sample Notes Method MRL Level Result Result Recovery Limits Analyte 425.1 0.5 3.0 0.7 2.9 73 60-130 X Methylene Blue Active Substances (MBAS)

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: 09/23/04

Date Received: 09/30/04 Date Extracted: NA

Date Analyzed: 10/06/04

Matrix Spike Summary **Inorganic Parameters**

Sample Name:

SKS-PP04

Lab Code:

K2407650-001MS

Test Notes:

Units: mg/L (ppm)

Basis: NA

Analyte	Analysis Method	MRL	Spike Level	Sample Result	•	Percent Recovery	Percent Recovery Acceptance Limits	Result Notes
Methylene Blue Active Substances (MBAS)	425.1	0.05	0.30	0.07	0.31	80	60-130	X.

QA/QC Report

Client: CH2M Hill

Project: Joint Cannery Outfall -Streams

Service Request: K2407650

Date Collected: NA
Date Received: NA

Methylene Blue Active Substances (MBAS) EPA Method 425.1 Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date	True	Measured	Percent
	Analyzed	Value	Value	Recovery
CCV1 Result	10/02/04	0.30	0.26	87
CCV2 Result	10/02/04	0.30	0.27	90
CCV3 Result	10/02/04	0.30	0.27	90
CCV1 Result	10/06/04	0.30	0.27	90
CCV2 Result	10/06/04	0.30	0.28	93

CONTINUING CALIBRATION BLANK (CCB)

	Date	1.007	Blank
	Analyzed	MRL	Value
CCB1 Result	10/02/04	0.05	ND
CCB2 Result	10/02/04	0.05	ND
CCB3 Result	10/02/04	0.05	ND
CCB1 Result	10/06/04	0.05	ND
CCB2 Result	10/06/04	0.05	ND

Analytical Report

Client:

CH2M Hill

Joint Cannery Outfall -Streams

Project Name:

Project Number: 147323.JC.04.TW

Sample Matrix: Water

Service Request: K2407650

Date Collected: 09/23/04

Date Received: 09/30/04

Solids, Total Suspended (TSS)

Units: mg/L (ppm)

Basis: NA

Analysis Method 160.2 Test Notes:

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	5	5	1	09/30/04	62	
Method Blank	K2407650-MB	5	5	1	09/30/04	ND	

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

Service Request: K2407650 Date Collected: 09/23/04

Date Received: 09/30/04

Date Extracted: NA Date Analyzed: 09/30/04

Units: mg/L (ppm)

Basis: NA

Duplicate Summary Inorganic Parameters

Sample Name:

SKS-PP04

Lab Code:

Test Notes:

K2407650-001DUP

				Duplicate	:	Relative	
Analyte	Analysis Method	MRL		Sample Result	Average	Percent Difference	Result Notes
Solids, Total Suspended (TSS)	160.2	5	62	72	67	15	

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: Sample Matrix:

147323.JC.04.TW

WATER

Service Request: K2407650

Date Collected: Date Received:

NA NA

Date Extracted: NA

Date Analyzed: 09/30/04

Laboratory Control Sample Summary **Inorganic Parameters**

Sample Name: Lab Code:

Lab Control Sample

K2407650-LCS

Test Notes:

Analyte

Units: mg/L (ppm)

Basis: NA

CAS Percent Recovery

Prep Method Analysis Method

True Value Result Recovery

Percent Acceptance Limits

Result Notes

Solids, Total Suspended (TSS)

None

160.2

311

300

96

85-115

Analytical Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix: WATER

Phosphorus, Total

Analysis Method 365.3

Test Notes:

Units: mg/L (ppm)
Basis: NA

Service Request: K2407650

Date Collected: 09/23/04

Date Received: 09/30/04

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	0.3	0.075	25	10/05/04	11.6	
Method Blank	K2407650-MB	0.01	0.003	1	10/05/04	ND	

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: 09/23/04

Date Received: 09/30/04 Date Extracted: NA

Date Analyzed: 10/05/04

Units: mg/L (ppm)

Basis: NA

Duplicate Summary Inorganic Parameters

Sample Name:

SKS-PP04

Lab Code:

K2407650-001DUP

Test Notes:

Analyte

Duplicate Relative Analysis. Sample Sample Percent Result Result Average Difference Notes Method MRL Result 10.8 7 365.3 0.3 11.6 11.2

Phosphorus, Total

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: 09/23/04 Date Received: 09/30/04

Date Extracted: NA

Date Analyzed: 10/05/04

Matrix Spike Summary **Inorganic Parameters**

Sample Name:

SKS-PP04

Lab Code:

K2407650-001MS

Test Notes:

Units: mg/L (ppm)

Basis: NA

Analyte	Analysis Method	MRL	Spike Level	Sample Result	-	Percent Recovery	Percent Recovery Acceptance Limits	Result Notes	
Phosphorus, Total	365.3	0.3	0.50	11.6	11.9	60	76-118	*	

QA/QC Report

Client: Project Name: CH2M Hill

Joint Cannery Outfall -Streams

Project Number:

147323.JC.04.TW

Sample Matrix:

WATER

Service Request:

K2407650 Date Collected: NA

Date Received: NA Date Extracted: NA

Date Analyzed: 10/05/04

Laboratory Control Sample Summary **Inorganic Parameters**

Sample Name: Lab Code:

Lab Control Sample

Test Notes:

K2407650-LCS

Units: mg/L (ppm)

CAS

Basis: NA

Percent Recovery Analysis Prep Percent Acceptance Result Method Method Analyte True Value Result Recovery Limits Notes 365.3 3.29 3.20 97 94-108 Phosphorus, Total None

QA/QC Report

Client: CH2M Hill

Project: Joint Cannery Outfall -Streams

Service Request: K2407650

Date Collected: NA
Date Received: NA

Phosphorus, Total EPA Method 365.3 Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date	True	Measured	Percent
	Analyzed	Value	Value	Recovery
CCV1 Result	10/05/04	0.50	0.49	98
CCV2 Result	10/05/04	0.50	0.50	100
CCV3 Result	10/05/04	0.50	0.50	100
CCV4 Result	10/05/04	0.50	0.50	100

CONTINUING CALIBRATION BLANK (CCB)

<u>.</u>	Date		Blank
	Analyzed	MRL	Value
CCB1 Result	10/05/04	0.01	ND
CCB2 Result	10/05/04	0.01	ND
CCB3 Result	10/05/04	0.01	ND
CCB4 Result	10/05/04	0.01	ND

Analytical Report

Client:

CH2M Hill

Project Name :

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix: WATER

Service Request: K2407650

Date Collected: 09/23/04

Date Received: 09/30/04

Phenolics, Total

Units: mg/L (ppm)
Basis: NA

Analysis Method 420.1 Test Notes:

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	0.01	0.003	1	10/06/04	0.32	
Method Blank	K2407650-MB	0.01	0.003	1	10/06/04	ND	

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: NA

Date Received: NA

Date Extracted: NA

Date Analyzed: 10/06/04

Duplicate Summary Inorganic Parameters

Sample Name:

BatchQC

Lab Code:

Test Notes:

K2407645-001DUP

Units: mg/L (ppm)

Basis: NA

Analyte	Analysis Method	MRL	Sample Result	Sample Result		Percent Difference	Result Notes	
Phenolics, Total	420.1	0.01	0.05	0.05	0.05	<1		

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: NA

Date Received: NA

Date Extracted: NA

Date Analyzed: 10/06/04

Matrix Spike Summary **Inorganic Parameters**

Sample Name:

BatchQC

Lab Code:

K2407645-001MS

Test Notes:

Units: mg/L (ppm)

Basis: NA

CAS Percent Spiked Recovery Analysis Spike Sample Sample Percent Acceptance Result MRL Method Result Level Result Recovery Limits Notes Analyte Phenolics, Total 420.1 0.01 0.40 0.05 0.41 90 75-125

QA/QC Report

Client: Project Name: CH2M Hill

Joint Cannery Outfall -Streams

Project Number:

147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected:

Date Received: NA Date Extracted: NA

Date Analyzed: 10/06/04

Laboratory Control Sample Summary **Inorganic Parameters**

Sample Name:

Lab Control Sample

K2407650-LCS Lab Code:

Test Notes:

Units:

mg/L (ppm)

NA

Basis: NA

CAS Percent Recovery Prep Analysis Percent Acceptance Result Analyte Method Method True Value Result Recovery Limits Notes Phenolics, Total None 420.1 0.50 0.50 100 85-115

QA/QC Report

Client: CH2M Hill

Project: Joint Cannery Outfall -Streams

Service Request: K2407650

Date Collected: NA
Date Received: NA

Phenolics, Total EPA Method 420.1 Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

_	Date	True	Measured	Percent
	Analyzed	Value	Value	Recovery
CCV1 Result	10/06/04	0.50	0.50	100
CCV2 Result	10/06/04	0.50	0.50	100
CCV3 Result	10/06/04	0.50	0.50	100

CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	10/06/04	0.01	ND
CCB2 Result	10/06/04	0.01	ND
CCB3 Result	10/06/04	0.01	ND

Analytical Report

Client:

CH2M Hill

Project Name :

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix: WATER

Service Request: K2407650

Date Collected: 09/23/04 Date Received: 09/30/04

Carbon, Total Organic

Units: mg/L (ppm)
Basis: NA

Analysis Method 415.1 Test Notes:

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	25	3.5	50	10/07/04	214	
Method Blank	K2407650-MB	0.5	0.07	1	10/07/04	ND	

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: 09/23/04 Date Received: 09/30/04

Date Extracted: NA

Date Analyzed: 10/07/04

Duplicate Summary Inorganic Parameters

Sample Name:

SKS-PP04

Lab Code:

K2407650-001DUP

Test Notes:

Analyte

Duplicate Relative Analysis Sample Sample Percent Result Method Result Result Average Difference Notes MRL

Carbon, Total Organic

415.1

25

214

219

217

Units: mg/L (ppm)

Basis: NA

2

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: 09/23/04

Date Received: 09/30/04 Date Extracted: NA

Date Analyzed: 10/07/04

Matrix Spike Summary **Inorganic Parameters**

Sample Name:

SKS-PP04

Lab Code:

K2407650-001MS

Test Notes:

Units: mg/L (ppm)

Basis: NA

					G-21		Percent P	
Analyte	Analysis Method	MRL	Spike Level	Sample Result	_	Percent Recovery	Recovery Acceptance Limits	Result Notes
Carbon, Total Organic	415.1	25	1250	214	1370	92	76-121	

QA/QC Report

Client:

CH2M Hill

Joint Cannery Outfall -Streams

Project Name: Project Number:

147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected:

NA

Date Received: NA

Date Extracted: NA

Date Analyzed: 10/07/04

Laboratory Control Sample Summary **Inorganic Parameters**

Sample Name:

Laboratory Control Sample

Lab Code:

K2407650-LCS

Units: mg/L (ppm)

Basis: NA

Test Notes:

Analyte

Prep Method

Analysis Method

True Value Result Recovery

Recovery Percent Acceptance Limits

CAS Percent

Carbon, Total Organic

None

415.1

30.1

29.1

97

92-106

Result

Notes

QA/QC Report

Client: CH2M Hill

Project: Joint Cannery Outfall -Streams

Service Request: K2407650

Date Collected: NA
Date Received: NA

Carbon, Total Organic EPA Method 415.1 Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

Date	True	Measured	Percent
Analyzed	Value	Value	Recovery
10/07/04	25.0	25.3	101
10/07/04	25.0	25.8	103
10/07/04	25.0	26.0	104
10/07/04	25.0	25.6	102
10/07/04	25.0	25.3	101
10/07/04	25.0	24.8	99
10/07/04	25.0	24.9	100
10/07/04	25.0	25.7	103
	Analyzed 10/07/04 10/07/04 10/07/04 10/07/04 10/07/04 10/07/04	Analyzed Value 10/07/04 25.0 10/07/04 25.0 10/07/04 25.0 10/07/04 25.0 10/07/04 25.0 10/07/04 25.0 10/07/04 25.0 10/07/04 25.0	Analyzed Value Value 10/07/04 25.0 25.3 10/07/04 25.0 25.8 10/07/04 25.0 26.0 10/07/04 25.0 25.6 10/07/04 25.0 25.3 10/07/04 25.0 25.3 10/07/04 25.0 24.8 10/07/04 25.0 24.9

CONTINUING CALIBRATION BLANK (CCB)

	Date		Blank
	Analyzed	MRL	Value
CCB1 Result	10/07/04	0.5	ND
CCB2 Result	10/07/04	0.5	ND
CCB3 Result	10/07/04	0.5	ND
CCB4 Result	10/07/04	0.5	ND
CCB5 Result	10/07/04	0.5	ND
CCB6 Result	10/07/04	0.5	ND
CCB7 Result	10/07/04	0.5	ND
CCB8 Result	10/07/04	0.5	ND

Analytical Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix: WATER

Service Request: K2407650

Date Collected: 09/23/04

Date Received: 09/30/04

Sulfite

Analysis Method 377.1

Test Notes:

Units: mg/L (ppm)

Basis: NA

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	2	0.3	1	10/01/04	55	
Method Blank	K2407650-MB	2	0.3	1	10/01/04	ND	

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: NA

Date Received: NA

Date Extracted: NA

Date Analyzed: 10/01/04

Duplicate Summary Inorganic Parameters

Sample Name:

BatchQC

Lab Code:

K2407645-001DUP

Test Notes:

Units: mg/L (ppm)

13

Basis: NA

Analyte

Analysis Method

MRL Result

Sample Sample

Duplicate

Relative Percent Result Result Average Difference Notes

377.1

2

13

13

Sulfite

Report By: AYaple

Analytical Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix: WATER

Service Request: K2407650

Date Collected: 09/23/04

Date Received: 09/30/04

Sulfide, Total

Units: mg/L (ppm)

Basis: NA

Analysis Method 376.2

Test Notes:

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	0.2	0.024	4	09/30/04	4.87	
Method Blank	K2407650-MB	0.05	0.006	1	09/30/04	ND	

QA/QC Report

Client:

CH2M Hill

Project Name: Project Number: 147323.JC.04.TW

Joint Cannery Outfall -Streams

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: 09/23/04

Date Received: 09/30/04

Date Extracted: NA Date Analyzed: 09/30/04

Duplicate Summary Inorganic Parameters

Sample Name:

COS-PP04

Lab Code:

K2407650-002DUP

Test Notes:

Units: mg/L (ppm)

Basis: NA

Analyte

Analysis Method

MRL Result

Duplicate Sample Sample Result

Relative Percent Result Average Difference Notes

0.97

0.96

0.97

Sulfide, Total

376.2

0.05

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: 09/23/04 Date Received: 09/30/04

Date Extracted: NA Date Analyzed: 09/30/04

Matrix Spike Summary . Inorganic Parameters

Sample Name:

COS-PP04

Lab Code:

K2407650-002MS

Test Notes:

Units: mg/L (ppm)

Basis: NA

Analyte	Analysis Method	MRL	Spike Level	Sample Result	-	Percent Recovery	Percent Recovery Acceptance Limits	Result Notes	
Sulfide, Total	376.2	0.05	1.76	0.97	4.06	176	75-125		

QA/QC Report

Client : Project Name : CH2M Hill

Joint Cannery Outfall -Streams

Project Number:

147323.JC.04.TW

Sample Matrix: WATER

Service Request: K2407650

Date Collected: NA

Date Received: NA
Date Extracted: NA

Date Analyzed: 09/30/04

Laboratory Control Sample Summary Inorganic Parameters

Sample Name:

Lab Control Sample

Lab Code:

K2407650-LCS

Test Notes:

Units: mg/L (ppm)

Basis: NA

CAS Percent Recovery Prep Analysis Percent Acceptance Result Method Method Limits Notes Analyte True Value Result Recovery Sulfide, Total None 376.2 1.76 1.74 99 85-115

QA/QC Report

Client: CH2M Hill

Project: Joint Cannery Outfall -Streams

Service Request: K2407650

Date Collected: NA

Date Received: NA

Sulfide, Total EPA Method 376.2 Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date Analyzed	True Value	Measured Value	Percent Recovery
CCV1 Result	09/30/04	1.76	1.74	99
CCV2 Result	09/30/04	1.76	1.72	98

CONTINUING CALIBRATION BLANK (CCB)

	Date Analyzed	MRL	Blank Value
CCB1 Result	09/30/04	0.05	ND
CCB2 Result	09/30/04	0.05	ND

Analytical Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix: WATER

Service Request: K2407650 Date Collected: 09/23/04

Date Received: 09/30/04

Nitrogen, Total Kjeldahl (TKN)

Units: mg/L (ppm) Basis: NA

Analysis Method 351.4

Test Notes:

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SKS-PP04	K2407650-001	3.0	1.75	25	10/05/04	64.1	
Method Blank	K2407650-MB	0.1	0.07	1	10/05/04	ND	

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: 09/23/04

Date Received: 09/30/04 Date Extracted: NA

Date Analyzed: 10/05/04

Duplicate Summary Inorganic Parameters

351.4

Sample Name:

SKS-PP04

Lab Code:

Test Notes:

K2407650-001DUP

Duplicate Relative Analysis Sample Sample Percent Result

Analyte

Nitrogen, Total Kjeldahl (TKN)

Method MRL

3.0

64.1

Result

64.1

64.1

Result Average Difference Notes

Units: mg/L (ppm)

Basis: NA

<1

QA/QC Report

Client:

CH2M Hill

Project Name:

Joint Cannery Outfall -Streams

Project Number: 147323.JC.04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: 09/23/04

Date Received: 09/30/04

Date Extracted: NA

Date Analyzed: 10/05/04

Matrix Spike Summary **Inorganic Parameters**

Sample Name: Lab Code:

SKS-PP04

K2407650-001MS

Test Notes:

Units: mg/L (ppm)

Basis: NA

CAS Percent Spiked Recovery Analysis Spike Sample Sample Percent Acceptance Result Method MRL Level Result Result Recovery Limits Notes Analyte 351.4 3.0 20.0 64.1 88.6 123 75-125 Nitrogen, Total Kjeldahl

(TKN)

QA/QC Report

Client: Project Name: CH2M Hill

Joint Cannery Outfall -Streams

Project Number:

147323.JC,04.TW

Sample Matrix:

WATER

Service Request: K2407650

Date Collected: Date Received:

NA NA ·

Date Extracted: NA Date Analyzed: 10/05/04

Laboratory Control Sample Summary **Inorganic Parameters**

Sample Name:

Laboratory Control Sample

Lab Code:

K2407650-LCS

Units: mg/L (ppm)

Basis: NA

Test Notes:

						CAS Percent	
Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	Recovery Acceptance Limits	Result Notes
Nitrogen, Total Kjeldahl (TKN)	None	351.4	8.5	8.1	95	85-115	

QA/QC Report

Client: CH2M Hill

Project: Joint Cannery Outfall -Streams

Service Request: K2407650

Date Collected: NA
Date Received: NA

Nitrogen, Total Kjeldahl (TKN) EPA Method 351.4 Units: mg/L (ppm)

CONTINUING CALIBRATION VERIFICATION (CCV)

	Date	True	Measured	Percent
1	Analyzed	Value	Value	Recovery
CCV1 Result	10/05/04	10.0	9.5	95
CCV2 Result	10/05/04	10.0	9.8	98
CCV3 Result	10/05/04	10.0	10.6	106
CCV4 Result	10/05/04	10.0	9.7	97
CCV2 Result CCV3 Result	10/05/04 10/05/04	10.0 10.0	9.8 10.6	98 106

CONTINUING CALIBRATION BLANK (CCB)

	Date		Blank
	Analyzed	MRL	Value
CCB1 Result	10/05/04	0.1	ND
CCB2 Result	10/05/04	0.1	ND
CCB3 Result	10/05/04	0.1	ND
CCB4 Result	10/05/04	0.1	ND

Metals

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client:

Matrix:

CH2M Hill

Service Request: K2407650

Project No.: 147323.JC.04.TW

Date Collected: 09/23/04

Project Name: Joint Cannery Outfall- Streams

Date Received: 09/30/04

Units: µG/L

Basis: NA

Sample Name: SKS-PP04

WATER

Lab Code: K2407650-001

Analyte	Analysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	С	Q
Aluminum	6010B	50	40	1	10/22/04	10/25/04	918		
Antimony	6010B	50	40	1	10/22/04	10/25/04	44.5	В	
Arsenic	7060A	25.0	5.0	5	10/21/04	10/26/04	17.5	В	
Barium	6010B	5.0	2.0	1	10/22/04	10/25/04	5.5		
Beryllium	6010B	5.0	0.4	1	10/22/04	10/25/04	0.4	U	
Boron	6010B	50	20	1	10/22/04	10/25/04	1820		
Cadmium	6010B	5.0	5.0	1	10/22/04	10/25/04	8.6		
Chromium	6010B	5.0	3.0	1	10/22/04	10/25/04	3.0	U	
Cobalt	6010B	10.0	5.0	1	10/22/04	10/25/04	5.0	U	
Copper	6010B	10.0	4.0	1	10/22/04	10/25/04	4.0	U	
Iron	6010B	20.0	20.0	1	10/22/04	10/25/04	321		
Lead	7421	4.0	2.0	2	10/21/04	10/26/04	2.0	ט	
Manganese	6010B	5.0	2.0	1	10/22/04	10/25/04	22.0		
Mercury	7470A	0.20	0.04	1	10/15/04	10/18/04	0.27		
Molybdenum	6010B	10.0	9.0	1	10/22/04	10/25/04	9.0	U	
Nickel	6010B	20	20	1	10/22/04	10/25/04	20	U	
Selenium	7740	25.0	5.0	5	10/21/04	10/26/04	5.6	B	
Silver	6010B	10.0	5.0	1	10/22/04	10/25/04	5.0	U	
Thallium	7841	25.0	5.0	5	10/21/04	10/22/04	5.0	U	
Tin	6010B	50	50	1	10/22/04	10/25/04	50	U	
Titanium	6010B	10.0	2.0	1	10/22/04	10/25/04	6.1	В	
Zinc	6010B	10.0	2.0	1	10/22/04	10/25/04	260		

% Solids: 0.0

Comments:

METALS

-1-

INORGANIC ANALYSIS DATA SHEET

Client:

CH2M Hill

Service Request: K2407650

Project No.: 147323.JC.04.TW

Date Collected:

Project Name: Joint Cannery Outfall- Streams

Date Received:

Matrix:

WATER

Units: µG/L

Basis: NA

Sample Name: Method Blank

Lab Code: K2407650-MB

Analyte	Analysis Method	MRL	MDL	Dil.	Date Extracted	Date Analyzed	Result	С	Q
Aluminum	6010B	50	40	1	10/22/04	10/25/04	40	U	
Antimony	6010B	50	40	1	10/22/04	10/25/04	40	U	
Arsenic	7060A	5.0	1.0	1	10/21/04	10/26/04	1.0	U	
Barium	6010B	5.0	2.0	1	10/22/04	10/25/04	2.0	U	
Beryllium	6010B	5.0	0.4	1	10/22/04	10/25/04	0.4	U	
Boron	6010B	50	20	1	10/22/04	10/25/04	20	U	
Cadmium	6010B	5.0	5.0	1	10/22/04	10/25/04	5.0	U	
Chromium	6010B	5.0	3.0	1	10/22/04	10/25/04	3.0	U	
Cobalt	6010B	10.0	5.0	1	10/22/04	10/25/04	5.0	U	
Copper	6010B	10.0	4.0	1	10/22/04	10/25/04	4.0	U	
Iron	6010B	20.0	20.0	1	10/22/04	10/25/04	20.0	U	
Lead	7421	2.0	1.0	1	10/21/04	10/26/04	1.0	U	-
Manganese	6010B	5.0	2.0	1	10/22/04	10/25/04	2.0	U	
Mercury	7470A	0.20	0.04	1	10/15/04	10/18/04	0.05	В	
Molybdenum	6010B	10.0	9.0	1	10/22/04	10/25/04	9.0	U	
Nickel	6010B	20	20	1	. 10/22/04	10/25/04	20	U	
Selenium	7740	5.0	1.0	1	10/21/04	10/26/04	1.0	U	
Silver	6010B	10.0	5.0	1	10/22/04	10/25/04	5.0	U	
Thallium	7841	5.0	1.0	1	10/21/04	10/22/04	1.0	U	
Tin	6010B	50	50	1	10/22/04	10/25/04	50	U	
Titanium	6010B	10.0	2.0	1	10/22/04	10/25/04	2.0	U	
Zinc	6010B	10.0	2.0	1	10/22/04	10/25/04	2.0	U	

% Solids: 0.0

Comments:

METALS
- 3 BLANKS

Client:

CH2M Hill

Service Request: K2407650

Project No.:

147323.JC.04.TW

Project Name: Joint Cannery Outfall- Stream

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

	Initial Calib. Blank		Cont		uing Ca ank (ug		oration		Preparation Blank	Method
Analyte	(ug/L)	С	1	C	2	C	3	C	C	
Aluminum	40	U	40	U	40	U	40	U		6010B
Antimony	40	U	40	U	40	ט	40	U		6010B
Arsenic	1.0	ט	1.0	U	1.0	U	1.0	U		7060A
Barium	2.0	U	2.0	U	2.0	ט	2.0	U		6010B
Beryllium	0.4	U	0.4	U	0.4	ט	0.4	U		6010B
Boron	27	В	20	U	20	ט	20	U	285028	6010B
Cadmium	5.0	U	5.0	U	5.0	U	5.0	U		6010B
Chromium	3.0	U	3.0	U	3.0	ט	3.0	U		6010B
Cobalt	5.0	ט	5.0	U	5.0	U	5.0	U	1	6010B
Copper	4.0	U	4.0	U	4.0	U	4.0	U		6010B
Iron	20.0	U	20.0	U	20.0	ט	20.0	U		6010B
Lead	1.0	В	1.0	U	1.0	ט	1.0	U		7421
Manganese	2.0	U	2.0	U	2.0	U	2.0	U		6010B
Mercury	0.04	U	0.04	U	0.04	ט	0.04	U		7470A
Molybdenum	9.0	U	9.0	U	9.0	U	9.0	U		6010B
Nickel	20	U	20	U	20	U	20	U		6010B
Selenium	1.0	U	1.0	U	1.0	U	1.0	U		7740
Silver	5.0	ט	5.0	U	5.0	ט	5.0	U		6010B
Thallium	1.7	В	1.0	ט	1.0	U	1.0	U		7841
Tin	50	U	50	U	50	ט	50	U		6010B
Titanium	2.0	U	2.0	U	2.0	ט	2.0	U		6010B
Zinc	2.0	U	2.0	U	2.0	U	2.0	U		6010B

METALS
-3BLANKS

Client:

CH2M Hill

Service Request: K2407650

Project No.:

147323.JC.04.TW

Project Name: Joint Cannery Outfall- Stream

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	С	Con	Blank (ug/L) Blank 1 C 2 C 3 C C		Method		
Arsenic			1.0	U		T	T	7060A
Lead			1.0	U		T		7421
Mercury			0.04	ט				7470A
Selenium			1.0	ט		II		7740
Thallium			1.0	וט				7841

METALS

-5a-

SPIKE SAMPLE RECOVERY

Client:

CH2M Hill

Service Request: K2407650

Project No.: 147323.JC.04.TW

Units: µg/L

Project Name: Joint Cannery Outfall- Streams

Basis: NA

Matrix:

WATER

& Solids: 0.0

Sample Name: SKS-PP04S

Lab Code: K2407650-001S

Analyte	Control Limit %R	Spike Result	С	Sample Result	С	Spike Added	8R	Q	Method
Aluminum	74 - 133	2730		918		2000	91		6010B
Antimony	70 - 136	544		44.5	В	500	100		6010B
Arsenic	57 - 124	49.1		17.5	В	40.0	79		7060A
Barium	80 - 127	1800		5.5		2000	90		6010B
Beryllium	83 - 123	42.3		0.4	ט	50.0	84		6010B
Boron	67 - 144	2710		1820		1000	89		6010B
Cadmium	69 - 135	57.2		8.6		50.0	97	1	6010B
Chromium	85 - 121	174		3.0	U	200	87		6010B
Cobalt	79 - 125	432		5.0	U	500	86		6010B
Copper	74 - 130	224		4.0	ט	250	90		6010B
Iron	74 - 131	1180		321		1000	86		6010B
Lead	63 - 125	34.0		2.0	ט	40.0	85		7421
Manganese	83 - 123	450		22.0		500	86		6010B
Molybdenum	73 - 127	864		9.0	U	1000	86		6010B
Nickel	82 - 124	423		20.0	U	500	84		6010B
Selenium	40 - 119	30.0		5.6	В	40.0	61		7740
Silver	31 - 156	45.7		5.0	U	50.0	91		6010B
Thallium	51 - 126	21.6	В	5.0	U	40.0	54		7841
Tin	75 - 125	9080		50.0	ט	10000	91		6010B
Titanium	75 - 125	8990		6.1	В	10000	90		6010B
Zinc	86 - 121	706		260		500	89		6010B

METALS

-5a-

SPIKE SAMPLE RECOVERY

Client:

CH2M Hill

Service Request: K2407650

Project No.: 147323.JC.04.TW

Units: µg/L

Project Name: Joint Cannery Outfall- Streams

Basis: NA

Matrix:

WATER

% Solids: 0.0

Sample Name: Batch QCS

Lab Code: K2407645-001S

Analyte	Control Limit %R	Spike Result	С	Sample Result	Spike Added	8R	Q	Method
Mercury	79 - 115	1.03		0.24	1.00	79		7470A

METALS -6-**DUPLICATES**

Client:

CH2M Hill

Service Request: K2407650

Project No.: 147323.JC.04.TW

Units: µg/L

Project Name: Joint Cannery Outfall- Streams

Basis: NA

Matrix:

WATER

% Solids: 0.0

Sample Name: SKS-PP04D

Lab Code: K2407650-001D

Analyte	Control Limit(%)	Sample (S)	С	Duplicate (D)	C	RPD	Q	Method
Aluminum	20	918		908		1		6010B
Antimony		44.5	В	41.4	В	7		6010B
Arsenic		17.5	В	17.9	В	2		7060A
Barium		5.5		5.5		0		6010B
Beryllium		0.4	U	0.4	ט			6010B
Boron	20	1820		1850		2		6010B
Cadmium		8.6		5.0	U	200.0		6010B
Chromium		3.0	U	3.0	U			6010B
Cobalt		5.0	U	5.0	U			6010B
Copper	1838	4.0	U	4.0	U			6010B
Iron	20	321		322		0		6010B
Lead		2.0	U	2.6	В	200.0		7421
Manganese		22.0		22.0		0		6010B
Molybdenum		9.0	U	9.0	U			6010B
Nickel		20	U	20	U			6010B
Selenium		5.6	В	5.0	ט	200.0		7740
Silver		5.0	U	5.0	U		Ť	6010B
Thallium		5.0	U	5.0	U			7841
Tin		50	U	. 50	U		T	6010B
Titanium		6.1	В	4.7	В	27		6010B
Zinc	20	260		260		0		6010B

METALS

-6-

DUPLICATES

Client:

CH2M Hill

Service Request: K2407650

Project No.: 147323.JC.04.TW

Units: µg/L

Project Name: Joint Cannery Outfall- Streams

Basis: NA

Matrix:

WATER

% Solids: 0.0

Sample Name: Batch QCD

Lab Code: K2407645-001D

Analyte	Control Limit(%)	Sample (S)	C	Duplicate	(D)	С	RPD	Q	Method
Mercury	.	0.	24		0.16	В	37		7470A

Oil & Grease EPA Method 1664

Analytical Report

Client:

Project: Sample Matrix: CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

Water

Service Request: K2407650

Date Collected: 9/23/2004 Date Received: 9/30/2004

Oil and Grease

Sample Name: Lab Code:

Test Notes:

SKS-PP04 K2407650-001 Units: mg/L (ppm)

Basis: NA

Analyte

Prep Method Method MRL MDL Factor Extracted Analyzed Result

1664

Analysis

Dilution

. 1

Date

Result Notes

Oil and Grease, Total (HEM)

METHOD

5.0 0.64 10/7/2004 10/8/2004

Date

8.0

beeler Date: 10/13/04 MY Approved By: 1S22/020597p

07650PHC.cq1 - 1 10/12/2004

Page No.:

Analytical Report

Client:

Project: Sample Matrix: CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

Service Request: K2407650

Date Collected: NA Date Received: NA

Oil and Grease

Sample Name:

Lab Code: Test Notes: Method Blank K041007-WB

Prep

Method

METHOD

Units: mg/L (ppm)

Result

Notes

Basis: NA

Analyte Oil and Grease, Total (HEM)

Analysis Method

1664

MRL MDL Factor Extracted Analyzed Result

5.0 0.64

Date

Dilution

10/7/2004 10/8/2004

Date

ND

M Approved By: 1S22/020597p

Date:

10/13/04

QA/QC Report

Client:

Project:

Sample Matrix:

CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

Water

Service Request: K2407650

Date Collected: NA Date Received: NA

Date Extracted: 10/7/2004

Date Analyzed: 10/8/2004

Matrix Spike Summary Oil and Grease

Sample Name:

Batch QC

K2407776-001MS

Units: mg/L (ppm)

Basis: NA

CAS

Lab Code:

Test Notes:

Analyte

Percent Spiked Recovery Prep Analysis Spike Sample Sample Percent Acceptance Result Method Method MRL Level Result Result Recovery Limits

Notes

1664 5.0 40 188 202 35* 78-114 Oil and Grease, Total (HEM) **METHOD**

Approved By:

MS/072898p 07650PHC.cql - MS 10/13/2004

Date:

18/13/04

QA/QC Report

Client: Project: LCS Matrix: CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

Service Request: K2407650

Date Collected: NA Date Received: NA

Date Extracted: 10/7/2004 Date Analyzed: 10/8/2004

Laboratory Control Sample/Duplicate Laboratory Control Sample Summary Oil and Grease

Sample Name:

Lab Control Sample

Units: mg/L (ppm)

Lab Code:

K041007-WL1, K041007-WL2

Basis: NA

Test Notes:

Percent Recovery

CAS Relative Acceptance Percent Result Limits

Analyte

Analysis True Value Result Method Method LCS DLCS LCS DLCS LCS DLCS

Difference Notes

Oil and Grease, Total (HEM)

METHOD 40 40 36.9 36.2 92 90 1664

. 78-114

2

Cycles Date: 10/13/04 Approved By:

DLCS/072898p 07650PHC.cql - DLCS 10/12/2004

Page No.:

Organochlorine Pesticides &

Polychlorinated Biphenyls (PCBs)

EPA Method 608

Analytical Results

Client:

CH2M Hill

roject:

Joint Cannery Outfall -Streams/147323.JC.04.TW

sample Matrix:

Water

Service Request: K2407650

Date Collected: 09/23/2004

Date Received: 09/30/2004

Organochlorine Pesticides and Polychlorinated Biphenyls

ample Name:

SKS-PP04

ab Code:

K2407650-001

Extraction Method:

EPA 3520C

nalysis Method:

608M

Units: ug/L Basis: NA

Level: Low

nalyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
lpha-BHC	ND	Ui	0.23	0.23	5	10/06/04	10/26/04	KWG0415263	*
beta-BHC	ND	Ui	0.052	0.052	5	10/06/04	10/26/04	KWG0415263	aje:
gamma-BHC (Lindane)	ND	Ui	0.052	0.025	5	10/06/04	10/26/04	KWG0415263	aje
elta-BHC	ND	U	0.052	0.0073	5	10/06/04	10/26/04	KWG0415263	*
Heptachlor	ND	Ui	0.052	0.0098	5	10/06/04	10/26/04	KWG0415263	* .
Aldrin	ND	Ui	0.052	0.042	5	10/06/04	10/26/04	KWG0415263	ajs
Ieptachlor Epoxide	ND	Ui	0.052	0.0048	5	10/06/04	10/26/04	KWG0415263	aje
Endosulfan I	ND	Ui	0.052	0.0062	5	10/06/04	10/26/04	KWG0415263	ağı
Dieldrin	ND	U	0.052	0.0036	5	10/06/04	10/26/04	KWG0415263	*
,4'-DDE	ND	Ui	0.052	0.052	5	10/06/04	10/26/04	KWG0415263	*
Endrin	ND	Ui	0.052	0.043	5	10/06/04	10/26/04	KWG0415263	冰
Endosulfan II	ND	U	0.052	0.0098	5	10/06/04	10/26/04	KWG0415263	*
,4'-DDD	ND	Ui	0.074	0.074	5	10/06/04	10/26/04	KWG0415263	*
Endrin Aldehyde	ND	U	0.052	0.0062	5	10/06/04	10/26/04	KWG0415263	*
Endosulfan Sulfate	ND	U	0.052	0.0073	5	10/06/04	10/26/04	KWG0415263	*
,4'-DDT	ND	U	0.052	0.013	5	10/06/04	10/26/04	KWG0415263	*
Toxaphene	ND	Ui	5.2	1.2	5	10/06/04	10/26/04	KWG0415263	**
Chlordane	ND	Ui	5.2	0.76	5	10/06/04	10/26/04	KWG0415263	*
roclor 1016	ND	U	1.1	0.11	1	10/06/04	10/23/04	KWG0415263	*
roclor 1221	ND	U	1.1	0.066	1	10/06/04	10/23/04	KWG0415263	ağı
Aroclor 1232	ND	U	1.1	0.045	1	10/06/04	10/23/04	KWG0415263	*
roclor 1242	ND	U	1.1	0.087	1	10/06/04	10/23/04	KWG0415263	*
roclor 1248	ND	U.	1.1	0.018	1	10/06/04	10/23/04	KWG0415263	ajc
Aroclor 1254	ND	U	1.1	0.0087	1	10/06/04	10/23/04	KWG0415263	*
croclor 1260	ND	U	1.1	0.022	1	10/06/04	10/23/04	KWG0415263	*

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note	
etrachloro-m-xylene	55	15-116	10/26/04	Acceptable	
ecachlorobiphenyl	38	10-153	10/26/04	Acceptable	

omments:

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Form 1A - Organic 349

Page 1 of 1

Analytical Results

Client: roject: CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

Service Request: K2407650

Date Collected: NA Date Received: NA

Organochlorine Pesticides and Polychlorinated Biphenyls

ample Name: Lab Code:

Extraction Method:

nalysis Method:

Sample Matrix:

Method Blank

KWG0415263-3

EPA 3520C 608M

Units: ug/L Basis: NA

Level: Low

nalyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.0098	0.0021	1	10/06/04	10/25/04	KWG0415263	
beta-BHC	ND	U	0.0098	0.0024	1	10/06/04	10/25/04	KWG0415263	
amma-BHC (Lindane)	ND	U	0.0098	0.0020	1	10/06/04	10/25/04	KWG0415263	
delta-BHC	ND	U	0.0098	0.0014	1	10/06/04	10/25/04	KWG0415263	
Heptachlor	. ND	U	0.0098	0.0016	1	10/06/04	10/25/04	KWG0415263	
ldrin	ND	U	0.0098	0.0016	1	10/06/04	10/25/04	KWG0415263	
leptachlor Epoxide	ND	U	0.0098	0.00088	1 ·	10/06/04	10/25/04	KWG0415263	
Endosulfan I	ND	U	0.0098	0.00059	1 .	10/06/04	10/25/04	KWG0415263	
Pieldrin	ND	U	0.0098	0.00068	1	10/06/04	10/25/04	KWG0415263	
,4'-DDE	ND	Ui	0.0098	0.0088	. 1	10/06/04	10/25/04	KWG0415263	
Endrin	ND	U	0.0098	0.0014	1	10/06/04	10/25/04	KWG0415263	
ndosulfan II	ND	U	0.0098	0.0019	1	10/06/04	10/25/04	KWG0415263	
,4'-DDD	ND	U.	0.0098	0.00080	1	10/06/04	10/25/04	KWG0415263	
Endrin Aldehyde	ND	U	0.0098	0.0012	1	10/06/04	10/25/04	KWG0415263	
Indosulfan Sulfate	ND	U	0.0098	0.0014	1	10/06/04	10/25/04	KWG0415263	
,4'-DDT	ND	U	0.0098	0.0024	1	10/06/04	10/25/04	KWG0415263	
Toxaphene	ND	U	0.98	0.18	1	10/06/04	10/25/04	KWG0415263	
Shlordane	ND	U	0.98	0.055	1	10/06/04	10/25/04	KWG0415263	
roclor 1016	ND	U	0.98	0.10	1	10/06/04	10/22/04	KWG0415263	
Aroclor 1221	ND	U	0.98	0.064	1	10/06/04	10/22/04	KWG0415263	
Aroclor 1232	ND	U	0.98	0.043	1	10/06/04	10/22/04	KWG0415263	
roclor 1242	ND	U	0.98	0.084	1	10/06/04	10/22/04	KWG0415263	
Aroclor 1248	ND	U	0.98	0.017	1	10/06/04	10/22/04	KWG0415263	
Aroclor 1254	ND	U	0.98	0.0084	1	10/06/04	10/22/04	KWG0415263	
roclor 1260	ND	U	0.98	0.021	1	10/06/04	10/22/04	KWG0415263	-

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note	
etrachloro-m-xylene	94	15-116	10/25/04	Acceptable	
Decachlorobiphenyl	97	10-153	10/25/04	Acceptable	

mments:

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Form 1A - Organic

Page 1 of 1 RR42462

QA/QC Report .

Client:

CH2M Hill

Service Request: K2407650

Project:

Joint Cannery Outfall -Streams/147323.JC.04.TW

Sample Matrix:

Surrogate Recovery Summary Organochlorine Pesticides and Polychlorinated Biphenyls

Extraction Method: EPA 3520C

Analysis Method: 608M Units: PERCENT

Level: Low

Sample Name	Lab Code	Sur1	Sur2	
SKS-PP04	K2407650-001	55 D	38 D	
COS-PP04	K2407650-002	127 D *	26 D	
Method Blank	KWG0415263-3	94	97	
Lab Control Sample	KWG0415263-1	103	77	
Duplicate Lab Control Sample	KWG0415263-2	90	109	

urrogate Recovery Control Limits (%)

Sur1 = Tetrachloro-m-xylene

15-116

ur2 = Decachlorobiphenyl

10-153

sults flagged with an asterisk (*) indicate values outside control criteria. Results flagged with a pound (#) indicate the control criteria is not applicable.

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Form 2A - Organic 352

Page 1 of 1

QA/QC Report

Client: Project:

Sample Matrix:

CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

Service Request: K2407650 Date Extracted: 10/06/2004

Date Analyzed: 10/25/2004 -

10/26/2004

Lab Control Spike/Duplicate Lab Control Spike Summary Organochlorine Pesticides and Polychlorinated Biphenyls

Extraction Method: Analysis Method:

EPA 3520C

608M

Units: ug/L Basis: NA

Level: Low

Extraction Lot: KWG0415263

Lab Control Sample KWG0415263-1

Duplicate Lab Control Sample KWG0415263-2

-	Lab	Control Spike	e	Duplicate	e Lab Control	Spike	%Rec		RPD
Analyte Name	Result	Expected	%Rec	Result	Expected	%Rec	Limits	RPD	Limit
pha-BHC	0.0965	0.0971	99	0.0915	0.0971	94	34-136	5	30
beta-BHC	0.0880	0.0971	91	0.0857	0.0971	88	35-144	3	30
camma-BHC (Lindane)	0.100	0.0971	103	0.0952	0.0971	98	39-134	.5	30
elta-BHC	0.104	0.0971	107	0.106	0.0971	110	41-141	2.	30
Heptachlor	0.0753	0.0971	78	0.0713	0.0971	73	32-126	6	30
Aldrin	0.0929	0.0971	96	0.0874	0.0971	90	28-126	6	30
eptachlor Epoxide	0.103	0.0971	107	0.105	0.0971	109	39-139	2	30
ndosulfan I	0.0849	0.0971	87	0.0860	0.0971	89	12-154	1	30
Dieldrin	0.0901	0.0971	93	0.0954	0.0971	98	44-136	6	30
4'-DDE	0.100	0.0971	103	0.0952	0.0971	98	43-136	5	30
ndrin	0.0991	0.0971	102	0.103	0.0971	106	44-138	3	30
Endosulfan II	0.0848	0.0971	87	0.0864	0.0971	89	19-157	2	30
4'-DDD	0.116	0.0971	119	0.111	0.0971	.115	44-141	4	30
ndrin Aldehyde	0.0830	0.0971	85	0.0834	0.0971	86	39-128	0	30
Endosulfan Sulfate	0.0934	0.0971	96	0.0952	0.0971	98	46-137	2	30
4,4'-DDT	0.0972	0.0971	100	0.108	0.0971	111	52-138	11	30

sults flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Form 3C - Organic 353

Page 1 of 1 DD 42462

QA/QC Report

lient: roject: CH2M Hill

Sample Matrix:

Joint Cannery Outfall -Streams/147323.JC.04.TW

Service Request: K2407650

Date Extracted: 10/06/2004 Date Analyzed: 10/22/2004

Time Analyzed: 05:29

Method Blank Summary Organochlorine Pesticides and Polychlorinated Biphenyls

Sample Name: Lab Code:

Method Blank KWG0415263-3

Instrument ID: GC09.i

File ID: J:\GC09\DATA\102104_608.B\1021F028.D

xtraction Method:

Level: Low

Analysis Method:

EPA 3520C 608M

Extraction Lot: KWG0415263

This Method Blank applies to the following analyses:

ample Name SKS-PP04 OS-PP04

Lab Code K2407650-001 K2407650-002

File ID

J:\GC09\DATA\102204_608.B\1022F036.D J:\GC09\DATA\102204_608.B\1022F037.D

Date Analyzed 10/23/04

Analyzed 09:21

Time

10/23/04 09:47

QA/QC Report

Client:

CH2M Hill

Project:

Joint Cannery Outfall -Streams/147323.JC.04.TW

Sample Matrix:

Service Request: K2407650

Date Extracted: 10/06/2004 Date Analyzed: 10/25/2004

Time Analyzed: 23:09

Method Blank Summary Organochlorine Pesticides and Polychlorinated Biphenyls

Sample Name: Lab Code:

Method Blank

KWG0415263-3

File ID: J:\GC23\DATA\102504B-608\1025F029.D Instrument ID: GC23

Extraction Method:

EPA 3520C

Level: Low

Analysis Method:

608M

Extraction Lot: KWG0415263

This Method Blank applies to the following analyses:

ample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG0415263-1	J:\GC23\DATA\102504B-608\1025F030.D	10/25/04	23:35
Duplicate Lab Control Sample	KWG0415263-2	J:\GC23\DATA\102504B-608\1025F031.D	10/26/04	00:02
KS-PP04	K2407650-001	J:\GC23\DATA\102504B-608\1025F036.D	10/26/04	02:14
COS-PP04	K2407650-002	J:\GC23\DATA\102504B-608\1025F037.D	10/26/04	02:41

QA/QC Report

lient:

CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

roject: Sample Matrix:

Service Request: K2407650

Lab Control Sample/Duplicate Lab Control Sample Summary Organochlorine Pesticides and Polychlorinated Biphenyls

ample Name:

Lab Control Sample

ab Code:

KWG0415263-1

File ID:

J:\GC23\DATA\102504B-608\1025F030.D

Instrument ID: ate Extracted: GC23 10/06/2004

Date Analyzed: Time Analyzed:

23:35

10/25/2004

Extraction Method: EPA 3520C

nalysis Method:

608M

Sample Name: Duplicate Lab Control Sample

Lab Code: KWG0415263-2

File ID: J:\GC23\DATA\102504B-608\1025F031.D Instrument ID: GC23

Date Extracted: 10/06/2004

Date Analyzed: 10/26/2004

Time Analyzed: 00:02

Level: Low

Extraction Lot: KWG0415263

These Lab Control Samples apply to the following analyses:

Lab Code	File ID	Date Analyzed	Time Analyzed
KWG0415263-3	J:\GC09\DATA\102104_608.B\1021F028.D	10/22/04	05:29
K2407650-001	J:\GC09\DATA\102204_608.B\1022F036.D	10/23/04	09:21
K2407650-002	· J:\GC09\DATA\102204_608.B\1022F037.D	10/23/04	09:47
KWG0415263-3	J:\GC23\DATA\102504B-608\1025F029.D	10/25/04	23:09
K2407650-001	J:\GC23\DATA\102504B-608\1025F036.D	10/26/04	02:14
K2407650-002	J:\GC23\DATA\102504B-608\1025F037.D	10/26/04	02:41
	KWG0415263-3 K2407650-001 K2407650-002 KWG0415263-3 K2407650-001	KWG0415263-3 J:\GC09\DATA\102104_608.B\1021F028.D K2407650-001 J:\GC09\DATA\102204_608.B\1022F036.D K2407650-002 J:\GC09\DATA\102204_608.B\1022F037.D KWG0415263-3 J:\GC23\DATA\102504B-608\1025F029.D K2407650-001 J:\GC23\DATA\102504B-608\1025F036.D	Lab Code File ID Analyzed KWG0415263-3 J:\GC09\DATA\102104_608.B\1021F028.D 10/22/04 K2407650-001 J:\GC09\DATA\102204_608.B\1022F036.D 10/23/04 K2407650-002 J:\GC09\DATA\102204_608.B\1022F037.D 10/23/04 KWG0415263-3 J:\GC23\DATA\102504B-608\1025F029.D 10/25/04 K2407650-001 J:\GC23\DATA\102504B-608\1025F036.D 10/26/04

Volatile Organic Compounds EPA Method 624

Analytical Results

Client:

CH2M Hill

Project: Sample Matrix: Joint Cannery Outfall -Streams/147323.JC.04.TW

Water

Service Request: K2407650

Date Collected: 09/23/2004

Date Received: 09/30/2004

Volatile Organic Compounds

Sample Name: Lab Code:

SKS-PP04 K2407650-001

Extraction Method: METHOD

Analysis Method:

624

Units: ug/L Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND 1	U	5.0	0.31	1	10/07/04	10/07/04	KWG0416904	
Vinyl Chloride	ND 1	U	5.0	0.58	1	10/07/04	10/07/04	KWG0416904	
Bromomethane	ND 1	U	5.0	0.81	1	10/07/04	10/07/04	KWG0416904	
Chloroethane	ND 1	U	5.0	0.46	1	10/07/04	10/07/04	KWG0416904	
Trichlorofluoromethane	ND 1	U	5.0	0.49	1	10/07/04	10/07/04	KWG0416904	
1,1-Dichloroethene	ND 1	U	5.0	0.48	1	10/07/04	10/07/04	KWG0416904	
Methylene Chloride	ND 1	U	5.0	0.21	1	10/07/04	10/07/04	KWG0416904	
trans-1,2-Dichloroethene	ND 1	U	5.0	0.19	1	10/07/04	10/07/04	KWG0416904	
1,1-Dichloroethane	ND 1	U	5.0	0.34	1	10/07/04	10/07/04	KWG0416904	
Chloroform	ND	U	5.0	0.21	1	10/07/04	10/07/04	KWG0416904	
1,1,1-Trichloroethane (TCA)	ND 1	U	5.0	0.45	1	10/07/04	10/07/04	KWG0416904	
Carbon Tetrachloride	ND 1	U	5.0	0.38	1	10/07/04	10/07/04	KWG0416904	
Benzene	ND 1	U	5.0	0.27	1	10/07/04	10/07/04	KWG0416904	
1,2-Dichloroethane (EDC)	ND 1	U	5.0	0.12	1	10/07/04	10/07/04	KWG0416904	
Trichloroethene (TCE)	ND 1	U	5.0	0.46	1	10/07/04	10/07/04	KWG0416904	
1,2-Dichloropropane	ND 1	U	5.0	0.19	1	10/07/04	10/07/04	KWG0416904	
Bromodichloromethane	ND 1	U	5.0	0.17	1	10/07/04	10/07/04	KWG0416904	
2-Chloroethyl Vinyl Ether	ND 1	U	10	0.62	1	10/07/04	10/07/04	KWG0416904	
trans-1,3-Dichloropropene	ND 1	U	5.0	0.17	1	10/07/04	10/07/04	KWG0416904	
Toluene	0.30	J	5.0	0.25	1	10/07/04	10/07/04	KWG0416904	
cis-1,3-Dichloropropene	ND 1	U	5.0	0.17	1	10/07/04	10/07/04	KWG0416904	
1,1,2-Trichloroethane	· ND	U ·	5.0	0.21	1	10/07/04	10/07/04	KWG0416904	
Tetrachloroethene (PCE)	ND 1	U	5.0	0.43	1	10/07/04	10/07/04	KWG0416904	
Dibromochloromethane	ND 1	U	5.0	0.15	1	10/07/04	10/07/04	KWG0416904	
Chlorobenzene	ND 1	U	5.0	0.18	1	10/07/04	10/07/04	KWG0416904	
Ethylbenzene	ND 1	U	5.0	0.33	1	10/07/04	10/07/04	KWG0416904	
Bromoform	ND 1	U	5.0	0.28	1	10/07/04	10/07/04	KWG0416904	
1,1,2,2-Tetrachloroethane	ND 1	U	5.0	0.25	1	10/07/04	10/07/04	KWG0416904	
1,3-Dichlorobenzene	ND 1	U	5.0	0.17	1	10/07/04	10/07/04	KWG0416904	
1,4-Dichlorobenzene	ND 1	U	5.0	0.17	1	10/07/04	10/07/04	KWG0416904	
1,2-Dichlorobenzene	ND 1	U	5.0	0.19	1	10/07/04	10/07/04	KWG0416904	
Acrolein	ND I	U	50	4.3	1	10/07/04	10/07/04	KWG0416904	
Acrylonitrile	ND I		10	0.45	1	10/07/04	10/07/04	KWG0416904	*

Comments:

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Form 1A - Organic 1079

1 of 2 Page

SuperSet Reference: RR42679

Analytical Results

Client:

CH2M Hill

Project:

Joint Cannery Outfall -Streams/147323.JC.04.TW

Sample Matrix:

Water

Service Request: K2407650

Date Collected: 09/23/2004

Date Received: 09/30/2004

Volatile Organic Compounds

Sample Name: Lab Code:

SKS-PP04 K2407650-001 Units: ug/L Basis: NA

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note	
Toluene-d8	112	80-124	10/07/04	Acceptable	
4-Bromofluorobenzene	100	79-117	10/07/04	Acceptable	•
Dibromofluoromethane	107	64-132	10/07/04	Acceptable	

Comments:

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Page 2 of 2

SuperSet Reference: RR42679

Analytical Results

Client: Project: CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

Service Request: K2407650

Date Collected: NA Date Received: NA

Sample Matrix:

Volatile Organic Compounds

Sample Name: Lab Code:

Method Blank KWG0415389-5 Units: ug/L Basis: NA

METHOD

Level: Low

Extraction Method: Analysis Method: 624

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Chloromethane	ND	U	5.0	0.31	1	10/01/04	10/01/04	KWG0415389	
Vinyl Chloride	ND	U	5.0	0.58	1	10/01/04	10/01/04	KWG0415389	
Bromomethane	ND	U	5.0	0.81	1	10/01/04	10/01/04	KWG0415389	
Chloroethane	ND	U	5.0	0.46	1	10/01/04	10/01/04	KWG0415389	
Trichlorofluoromethane	ND	U	5.0	0.49	1	10/01/04	10/01/04	KWG0415389	
1,1-Dichloroethene	ND	U	5.0	0.48	1	10/01/04	10/01/04	KWG0415389	
Methylene Chloride	ND	U	5.0	0.21	1 .	10/01/04	10/01/04	KWG0415389	
trans-1,2-Dichloroethene	ND	U	5.0	0.19	1	10/01/04	10/01/04	KWG0415389	
1,1-Dichloroethane	ND	U	5.0	0.34	1	10/01/04	10/01/04	KWG0415389	
Chloroform	ND	U	5.0	0.21	1	10/01/04	10/01/04	KWG0415389	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	0.45	1	10/01/04	10/01/04	KWG0415389	
Carbon Tetrachloride	ND	U	5.0	0.38	1	10/01/04	10/01/04	KWG0415389	
Benzene	ND	U	5.0	0.27	1	10/01/04	10/01/04	KWG0415389	
1,2-Dichloroethane (EDC)	ND	U	5.0	0.12	1	10/01/04	10/01/04	KWG0415389	
Trichloroethene (TCE)	ND	U	5.0	0.46	1	10/01/04	10/01/04	KWG0415389	
1,2-Dichloropropane	ND	U	5.0	0.19	1	10/01/04	10/01/04	KWG0415389	
Bromodichloromethane	ND	U	5.0	0.17	1	10/01/04	10/01/04	KWG0415389	
2-Chloroethyl Vinyl Ether	ND	U	10	0.62	1	10/01/04	10/01/04	KWG0415389	
trans-1,3-Dichloropropene	ND	U	5.0	0.17	1	10/01/04	10/01/04	KWG0415389	
Toluene	ND	U	5.0	0.25	1	10/01/04	10/01/04	KWG0415389	
cis-1,3-Dichloropropene	ND	U	5.0	0.17	1	10/01/04	10/01/04	KWG0415389	
1,1,2-Trichloroethane	ND	U	5.0	0.21	1	10/01/04	10/01/04	KWG0415389	
Tetrachloroethene (PCE)	ND	U	5.0	0.43	1	10/01/04	10/01/04	KWG0415389	
Dibromochloromethane	ND	U	5.0	0.15	1	10/01/04	10/01/04	KWG0415389	
Chlorobenzene	ND	U	5.0	0.18	1	10/01/04	10/01/04	KWG0415389	
Ethylbenzene	ND	U	5.0	0.33	1	10/01/04	10/01/04	KWG0415389	
Bromoform	ND	U	5.0	0.28	1	10/01/04	10/01/04	KWG0415389	
1,1,2,2-Tetrachloroethane	ND	U	5.0	0.25	1	10/01/04	10/01/04	KWG0415389	
1,3-Dichlorobenzene	ND	U	5.0	0.17	1	10/01/04	10/01/04	KWG0415389	
1,4-Dichlorobenzene	ND	U	5.0	0.17	1	10/01/04	10/01/04	KWG0415389	
1,2-Dichlorobenzene	ND		5.0	0.19	1	10/01/04	10/01/04	KWG0415389	
Acrolein	ND		50	4.3	1	10/01/04	10/01/04	KWG0415389	
Acrylonitrile	. ND	U	10	0.45	1	10/01/04	10/01/04	KWG0415389	

Comments:

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SuperSet Reference:

1 of 2

Analytical Results

Client: Project: CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

Water

Service Request: K2407650

Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Lab Code:

Sample Matrix:

Method Blank KWG0415389-5 Units: ug/L Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note	
Toluene-d8	85	80-124	10/01/04	Acceptable	
4-Bromofluorobenzene	79	79-117	10/01/04	Acceptable	
Dibromofluoromethane	82	64-132	10/01/04	Acceptable	

Comments:

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Form 1A - Organic 1084

Page 2 SuperSet Reference: RR42679

QA/QC Report

Client:

CH2M Hill

Project: Sample Matrix: Joint Cannery Outfall -Streams/147323.JC.04.TW

Surrogate Recovery Summary Volatile Organic Compounds

Extraction Method:

METHOD

Analysis Method:

624

Service Request: K2407650

Units: PERCENT

Level: Low

Sample Name	Lab Code	Sur1	Sur2		Sur3
SKS-PP04	K2407650-001	112	100		107
COS-PP04	K2407650-002	87	78	*	82
Method Blank	KWG0415389-5	85	79		82
Method Blank	KWG0416904-3	103	94		100
Batch QC	K2407594-019	89	76	*	81
Batch QCMS	KWG0415389-1	85	79		82
Batch QCDMS	KWG0415389-2	84	82		.84
Lab Control Sample	KWG0415389-3	86	81		83
Lab Control Sample	KWG0416904-1	107	107		112
Duplicate Lab Control Sample	KWG0416904-2	92	91		95

Surrogate Recovery Control Limits (%)

Sur1 = Toluene-d8 80-124 Sur2 = 4-Bromofluorobenzene 79-117 Sur3 = Dibromofluoromethane 64-132

Results flagged with an asterisk (*) indicate values outside control criteria. Results flagged with a pound (#) indicate the control criteria is not applicable.

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SuperSet Reference:

QA/QC Report

Client: Project: CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

Sample Matrix:

Service Request: K2407650 Date Extracted: 10/01/2004

Date Analyzed: 10/01/2004

Matrix Spike/Duplicate Matrix Spike Summary **Volatile Organic Compounds**

Sample Name: Lab Code:

Batch QC K2407594-019

Extraction Method: Analysis Method:

METHOD

624

Units: ug/L Basis: NA

Level: Low

Extraction Lot: KWG0415389

	Sample	KV	atch QCMS VG0415389- Matrix Spike	1	KV	atch QCDMS VG0415389-2 cate Matrix S	2	%Rec		RPD
Analyte Name	Result	Result	Expected	%Rec	Result	Expected	%Rec	Limits	RPD	Limit
1,1-Dichloroethene	ND	30.9	20.0	154 *	31.8	20.0	159 *	60-152	3	30
Benzene	ND	27.8	20.0	139 *	28.9	20.0	145 *	76-132	4	30
Trichloroethene (TCE)	ND	29.1	20.0	145	29.6	20.0	148	37-183	2	30
Toluene	ND	26.9	20.0	134	28.6	20.0	143 *	62-141	6	30
Chlorobenzene	ND	25.0	20.0	125	26.4	20.0	132 *	70-128	5	30
1,2-Dichlorobenzene	ND	25.7	20.0	129	27.0	20.0	135 *	68-129	5	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: Project: Sample Matrix:

CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

Water

Service Request: K2407650

Date Extracted: 10/01/2004

Date Extracted: 10/01/2004

Date Analyzed: 10/01/2004

Lab Control Spike Summary Volatile Organic Compounds

Extraction Method:

METHOD

Analysis Method: 624

Units: ug/L Basis: NA

Level: Low

Extraction Lot: KWG0415389

Lab Control Sample KWG0415389-3

	Lab	Control Spik	e	%Rec						
Analyte Name	Result	Expected	%Rec	Limits						
Chloromethane	18.6	20.0	93	49-136						
Vinyl Chloride	19.3	20.0	96	61-145						
Bromomethane	20.9	20.0	105	35-154						
Chloroethane	20.5	20.0	103	60-131						
Trichlorofluoromethane	19.0	20.0	95	57-138			•			
1,1-Dichloroethene	21.3	20.0	106	61-141						
Methylene Chloride	19.9	20.0	100	65-126	,	•				
trans-1,2-Dichloroethene	20.0	20.0	100	65-130						
1,1-Dichloroethane	19.1	20.0	95	65-127					•	
Chloroform	18.4	20.0	92	67-131						
1,1,1-Trichloroethane (TCA)	20.1	20.0	100	61-143						
Carbon Tetrachloride	20.3	20.0	101	70-140						
Benzene	19.5	20.0	97	75-127						
1,2-Dichloroethane (EDC)	19.8	20.0	99	64-132						
Trichloroethene (TCE)	20.1	20.0	100	71-157						
1,2-Dichloropropane	18.7	20.0	94	72-123						
Bromodichloromethane	18.7	20.0	94	70-125						
2-Chloroethyl Vinyl Ether	26.9	20.0	134	10-185						
trans-1,3-Dichloropropene	17.2	20.0	86	66-125						
Toluene	19.5	20.0	97	71-132						
cis-1,3-Dichloropropene	18.4	20.0	92	72-134				,		
1,1,2-Trichloroethane	19.8	20.0	99	72-126						
Tetrachloroethene (PCE)	20.2	20.0	101	69-131						
Dibromochloromethane	18.9	20.0	94	70-126						
Chlorobenzene	18.1	20.0	91	75-122						
Ethylbenzene	19.6	20.0	98	75-133						
Bromoform	20.4	20.0	102	72-133						
1,1,2,2-Tetrachloroethane	19.3	20.0	96	59-133						
1,3-Dichlorobenzene	20.0	20.0	100	73-129						
_1,4-Dichlorobenzene	19.6	20.0	98	74-125						
1,2-Dichlorobenzene	19.8	20.0	99	71-129						
Acrolein	70.6	100	71	10-161						
Acrylonitrile	20.8	20.0	104	67-115						
rotytomune	20.0	20.0	104	0/2112						

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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RR42679

SuperSet Reference:

QA/QC Report

Client:

CH2M Hill

Project: Sample Matrix: Joint Cannery Outfall -Streams/147323.JC.04.TW

Water

Service Request: K2407650

Date Extracted: 10/07/2004

Date Analyzed: 10/07/2004

Lab Control Spike/Duplicate Lab Control Spike Summary Volatile Organic Compounds

Extraction Method:

METHOD

Analysis Method:

624

Units: ug/L Basis: NA

Level: Low

Extraction Lot: KWG0416904

Lab Control Sample KWG0416904-1 Duplicate Lab Control Sample KWG0416904-2

Analyte Name Result Expected Result Initial 11-15 30 10-16-11-15 10-10-16-10-10-10-10-10-10-10-10-10-10-10-10-10-	٠
Vinyl Chloride 25.6 20.0 128 20.9 20.0 104 61-145 20 30 Bromomethane 26.7 20.0 133 23.8 20.0 119 35-154 11 30 Chloroethane 25.8 20.0 129 21.0 20.0 105 60-131 21 30 Trichlorofluoromethane 21.0 20.0 105 18.3 20.0 91 57-138 14 30 1,1-Dichloroethene 24.6 20.0 123 20.4 20.0 102 61-141 19 30 Methylene Chloride 21.2 20.0 106 18.2 20.0 91 65-126 15 30 trans-1,2-Dichloroethane 22.7 20.0 114 19.7 20.0 98 65-127 14 30 Chloroform 22.8 20.0 114 19.6 20.0 98 65-127 14 30 Chloroform 22.8 <td< th=""><th></th></td<>	
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Bromoform 23.8 20.0 119 19.8 20.0 99 72-133 18 30 1,1,2,2-Tetrachloroethane 23.6 20.0 118 18.9 20.0 95 59-133 22 30 1,3-Dichlorobenzene 23.8 20.0 119 19.4 20.0 97 73-129 20 30	
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1,2-Dichlorobenzene 23.6 20.0 118 19.1 20.0 95 71-129 21 30	
Acrolein 87.8 100 88 76.2 100 76 10-161 14 30	
Acrylonitrile 23.4 20.0 117 * 19.1 20.0 96 67-115 20 30	

Results flagged with an asterisk (*) indicate values outside control criteria.

ercent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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SuperSet Reference:

QA/QC Report

Client: Project: CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

Sample Matrix:

Water

Service Request: K2407650

Date Extracted: 10/01/2004

Date Analyzed: 10/01/2004

Matrix Spike/Duplicate Matrix Spike Summary Volatile Organic Compounds

Sample Name: Lab Code:

Batch QC K2407594-019

Extraction Method:

METHOD

Basis: NA Level: Low

Units: ug/L

Analysis Method:

624

Extraction Lot: KWG0415389

	Sample	KV	atch QCMS VG0415389- Matrix Spike	1	KV	atch QCDMS VG0415389- cate Matrix S	2	%Rec		RPD
Analyte Name	Result	Result	Expected	%Rec	Result	Expected	%Rec	Limits	RPD	Limit
1,1-Dichloroethene	ND	30.9	20.0	154 *	31.8	20.0	159 *	60-152	3	30
Benzene	ND	27.8	20.0	139 *	28.9	20.0	145 *	76-132	4	30
Trichloroethene (TCE)	ND	29.1	20.0	145	29.6	20.0	148	37-183	2	30
Toluene	ND	26.9	20.0	134	28.6	20.0	143 *	62-141	6	30
Chlorobenzene	ND	25.0	20.0	125	26.4	20.0	132 *	70-128	5	30
1,2-Dichlorobenzene	ND	25.7	20.0	129	27.0	20.0	135 *	68-129	5	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Form 3A - Organic

1119

Page 1 of 1

QA/QC Report

Client: Project: Sample Matrix: CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

Water

Date Extracted: 10/01/2004

Date Analyzed: 10/01/2004

Lab Control Spike Summary Volatile Organic Compounds

Extraction Method: Analysis Method: **METHOD**

624

Units: ug/L
Basis: NA
Level: Low

Extraction Lot: KWG0415389

Lab Control Sample KWG0415389-3

	Lab	Control Spik	e	%Rec		
Analyte Name	Result	Expected	%Rec	Limits		
Chloromethane	18.6	20.0	93	49-136		
Vinyl Chloride	19.3	20.0	96	61-145		
Bromomethane	20.9	20.0	105	35-154		
Chloroethane	20.5	20.0	103	60-131		
Trichlorofluoromethane	19.0	20.0	95	57-138		
1,1-Dichloroethene	21.3	20.0	106	61-141		
Methylene Chloride	19.9	20.0	100	65-126		
trans-1,2-Dichloroethene	20.0	20.0	100	65-130		
1,1-Dichloroethane	19.1	20.0	95	65-127		
Chloroform	18.4	20.0	92	67-131		
1,1,1-Trichloroethane (TCA)	20.1	20.0	100	61-143		
Carbon Tetrachloride	20.3	20.0	101	70-140		
Benzene	19.5	20.0	97	75-127		
1,2-Dichloroethane (EDC)	19.8	20.0	99	64-132	*	
Trichloroethene (TCE)	20.1	20.0	100	71-157		
1,2-Dichloropropane	18.7	20.0	94	72-123	•	
Bromodichloromethane	18.7	20.0	94	70-125		
2-Chloroethyl Vinyl Ether	26.9	20.0	134	10-185		
trans-1,3-Dichloropropene	17.2	20.0	86	66-125		
Toluene	19.5	20.0	97	71-132		
cis-1,3-Dichloropropene	18.4	20.0	92	72-134		
1,1,2-Trichloroethane	19.8	20.0	99	72-126		
Tetrachloroethene (PCE)	20.2	20.0	101	69-131		
Dibromochloromethane	18.9	20.0	94	70-126		
Chlorobenzene	18.1	20.0	91	75-122		
Ethylbenzene	19.6	20.0	98	75-133		
Bromoform	20.4	20.0	102	72-133		
1,1,2,2-Tetrachloroethane	19.3	20.0	96	59-133		
1,3-Dichlorobenzene	20.0	20.0	100	73-129		
1,4-Dichlorobenzene	19.6	20.0	98	74-125		
1,2-Dichlorobenzene	19.8	20.0	99	71-129		
Acrolein	70.6	100	71	10-161		
Acrylonitrile	20.8	20.0	104	67-115		

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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RR42679

SuperSet Reference:

QA/QC Report

Client: Project: CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

Sample Matrix:

Service Request: K2407650 Date Extracted: 10/07/2004

Date Analyzed: 10/07/2004

Lab Control Spike/Duplicate Lab Control Spike Summary **Volatile Organic Compounds**

Extraction Method: Analysis Method:

METHOD

624

Units: ug/L Basis: NA Level: Low

Extraction Lot: KWG0416904

Lab Control Sample KWG0416904-1

Duplicate Lab Control Sample KWG0416904-2

		G0416904-1 Control Spik		G0416904-2 Lab Control		%Rec		RPD	
Analyte Name	Result	Expected	%Rec	Result	Expected	%Rec	Limits	RPD	Limit
Chloromethane	26.8	20.0	134	23.0	20.0	115	49-136	15	30
Vinyl Chloride	25.6	20.0	128	20.9	20.0	104	61-145	20	30
Bromomethane	26.7	20.0	133	23.8	20.0	119	35-154	11	30
Chloroethane	25.8	20.0	129	21.0	20.0	105	60-131	21	30
Trichlorofluoromethane	21.0	20.0	105	18.3	20.0	. 91	57-138	14	30
1,1-Dichloroethene	24.6	20.0	123	20.4	20.0	102	61-141	19	30
Methylene Chloride	21.2	20.0	106	18.2	20.0	91	65-126	15	30
trans-1,2-Dichloroethene	23.6	20.0	118	19.9	20.0	100	65-130	17	30
1,1-Dichloroethane	22.7	20.0	114	19.7	20.0	98	65-127	14	30
Chloroform	22.8	20.0	114	19.6	20.0	98	67-131	15	30
1,1,1-Trichloroethane (TCA)	22.7	20.0	113	19.2	20.0	96	61-143	17	30
Carbon Tetrachloride	23.2	20.0	116	19.8	20.0	99	70-140	16	30
Benzene	24.0	20.0	120	20.2	20.0	101	75-127	17	30
1,2-Dichloroethane (EDC)	22.6	20.0	113	19.6	20.0	98	64-132	14	30
Trichloroethene (TCE)	23.5	20.0	118	20.9	20.0	105	71-157	12	30
1,2-Dichloropropane	22.9	20.0	114	19.6	20.0	98	72-123	16	30
Bromodichloromethane	23.3	20.0	117	20.1	20.0	101	70-125	15	30
2-Chloroethyl Vinyl Ether	15.8	20.0	79	11.5	20.0	- 58	10-185	32 *	30
trans-1,3-Dichloropropene	21.2	20.0	106	18.7	20.0	93	66-125	12	30
Toluene	23.4	20.0	117	20.1	20.0	100	71-132	15	30
cis-1,3-Dichloropropene	22.0	20.0	110	19.4	20.0	97	72-134	12	30
1,1,2-Trichloroethane	22.1	20.0	110	18.3	20.0	91	72-126	19	30
Tetrachloroethene (PCE)	19.5	20.0	98	16.6	20.0	83	69-131	16	30
Dibromochloromethane	22.9	20.0	114	19.6	20.0	98	70-126	15	30
Chlorobenzene	22.8	20.0	114	19.2	20.0	96	75-122	17	30
Ethylbenzene	23.7	20.0	118	19.6	20.0	98	75-133	19	30
Bromoform	23.8	20.0	119	19.8	20.0	99	72-133	18	30
1,1,2,2-Tetrachloroethane	23.6	20.0	118	18.9	20.0	95	59-133	22	30
1,3-Dichlorobenzene	23.8	20.0	119	19.4	20.0	97	73-129	20	30
1,4-Dichlorobenzene	24.4	20.0	122	19.6	20.0	98	74-125	22	30
1,2-Dichlorobenzene	23.6	20.0	118	19.1	20.0	95	71-129	21	30
Acrolein	87.8	100	88	76.2	100	76	10-161	14	30
Acrylonitrile	23.4	20.0	117 *	19.1	20.0	96	67-115	20	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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SuperSet Reference:

Semi-Volatile Organic Compounds by GC/MS EPA Method 625

Analytical Results

Client:

CH2M Hill

Project: Joint Can

Joint Cannery Outfall -Streams/147323.JC.04.TW

Water

Service Request: K2407650 Date Collected: 09/23/2004

Date Received: 09/30/2004

Semi-Volatile Organic Compounds by GC/MS

Sample Name: Lab Code:

Sample Matrix:

SKS-PP04 K2407650-001

Extraction Method:

EPA 3520C

Analysis Method:

625

Units: ug/L Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	50	0.96	1	10/06/04	10/13/04	KWG0415309	*
Bis(2-chloroethyl) Ether	ND	U	20	0.67	1	10/06/04	10/13/04	KWG0415309	*
Phenol	220		20	0.65	1	10/06/04	10/13/04	KWG0415309	*
2-Chlorophenol	ND	U	20	0.63	1	10/06/04	10/13/04	KWG0415309	*
1,3-Dichlorobenzene	ND	U	20	0.71	1	10/06/04	10/13/04	KWG0415309	*
1,4-Dichlorobenzene	ND	U	20	0.64	1	10/06/04	10/13/04	KWG0415309	*
1,2-Dichlorobenzene	ND	U	20	0.87	1	10/06/04	10/13/04	KWG0415309	*
Bis(2-chloroisopropyl) Ether	ND	U	20	0.63	1	10/06/04	10/13/04	KWG0415309	aje
Hexachloroethane	ND	U	20	0.58	1	10/06/04	10/13/04	KWG0415309	**
N-Nitrosodi-n-propylamine	ND	U	20	1.0	1	10/06/04	10/13/04	KWG0415309	*
Nitrobenzene	ND	U	20	1.2	1	10/06/04	10/13/04	KWG0415309	*
Isophorone	ND	U.	20	0.50	1	10/06/04	10/13/04	KWG0415309	*
2-Nitrophenol	ND	U	20	0.75	1	10/06/04	10/13/04	KWG0415309	*
2,4-Dimethylphenol	ND	U	20	0.53	. 1	10/06/04	10/13/04	KWG0415309	*
Bis(2-chloroethoxy)methane	ND	U	20	0.56	1	10/06/04	10/13/04	KWG0415309	*
2,4-Dichlorophenol	ND	U	20	0.60	1	10/06/04	10/13/04	KWG0415309	*
1,2,4-Trichlorobenzene	ND	U	20	0.71	1	10/06/04	10/13/04	KWG0415309	ajs.
Naphthalene	ND	U	20	0.73	1	10/06/04	10/13/04	KWG0415309	*
Hexachlorobutadiene	ND	U	20	0.59	1	10/06/04	10/13/04	KWG0415309	*
4-Chloro-3-methylphenol	ND '	U	20	0.98	1	10/06/04	10/13/04	KWG0415309	*
Hexachlorocyclopentadiene	ND	U	20	.2,5	1	10/06/04	10/13/04	KWG0415309	*
2,4,6-Trichlorophenol	ND '	U	20	0.41	1	10/06/04	10/13/04	KWG0415309	*
2-Chloronaphthalene	ND '	U	20	0.58	1	10/06/04	10/13/04	KWG0415309	*
Acenaphthylene	ND	U	20	0.48	1	10/06/04	10/13/04	KWG0415309	*
Dimethyl Phthalate	ND	U	. 20	0.51	1	10/06/04	10/13/04	KWG0415309	*
2,6-Dinitrotoluene	ND '	U	20	0.70	1	10/06/04	10/13/04	KWG0415309	*
Acenaphthene	ND	U	20	0.57	1	10/06/04	10/13/04	KWG0415309	*
2,4-Dinitrophenol	ND '	U	50	4.5	1	10/06/04	10/13/04	KWG0415309	*
4-Nitrophenol	ND '	U	50	3.9	1	10/06/04	10/13/04	KWG0415309	aje
2,4-Dinitrotoluene	ND 1	U	20	0.55	1	10/06/04	10/13/04	KWG0415309	*
Fluorene	ND 1	U	20	0.65	1	10/06/04	10/13/04	KWG0415309	*
4-Chlorophenyl Phenyl Ether	ND 1	U	20	0.56	1	10/06/04	10/13/04	KWG0415309	*
Diethyl Phthalate	ND 1		20	0.58	1	10/06/04	10/13/04	KWG0415309	*
2-Methyl-4,6-dinitrophenol	ND 1	U	50	4.3	1	10/06/04	10/13/04	KWG0415309	-4-

Comments:

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Form 1A - Organic 1308

Page 1 of 3

Analytical Results

Client:

CH2M Hill

Project:

Joint Cannery Outfall -Streams/147323.JC.04.TW

Sample Matrix:

Water

Service Request: K2407650

Date Collected: 09/23/2004

Date Received: 09/30/2004

Semi-Volatile Organic Compounds by GC/MS

Sample Name: Lab Code:

SKS-PP04 K2407650-001

Extraction Method:

EPA 3520C

Analysis Method:

625

Units: ug/L Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodiphenylamine	ND	U	20	1.1	1	10/06/04	10/13/04	KWG0415309	*
1,2-Diphenylhydrazine†	ND	U	20	1.1	`1	10/06/04	10/13/04	KWG0415309	*
4-Bromophenyl Phenyl Ether	ND	U .	20	0.55	1	10/06/04	10/13/04	KWG0415309	*
Hexachlorobenzene	ND	U	20	1.3	1	10/06/04	10/13/04	KWG0415309	*
Pentachlorophenol	ND	U	50	4.9	1	10/06/04	10/13/04	KWG0415309	*
Phenanthrene	ND	U	20	0.97	1	10/06/04	10/13/04	KWG0415309	*
Anthracene	ND	U	20	1.3	1	10/06/04	10/13/04	KWG0415309	*
Di-n-butyl Phthalate	ND	U	. 20	0.73	1	10/06/04	10/13/04	KWG0415309	*
Fluoranthene	ND	U	20	1.4	1	10/06/04	10/13/04	KWG0415309	*
Benzidine	ND	U	100	18	1	10/06/04	10/13/04	KWG0415309	*
Pyrene	ND	U	20	1.5	1	10/06/04	10/13/04	KWG0415309	*
Butyl Benzyl Phthalate	ND	U	20	0.94	1	10/06/04	10/13/04	KWG0415309	aje
3,3'-Dichlorobenzidine	ND	U	50	0.54	1	10/06/04	10/13/04	KWG0415309	*
Benz(a)anthracene	ND	U	20	1.2	1	10/06/04	10/13/04	KWG0415309	*
Chrysene	ND	U	20	1.6	1	10/06/04	10/13/04	KWG0415309	*
Bis(2-ethylhexyl) Phthalate	ND	U	20	3.8	1	10/06/04	10/13/04	KWG0415309	*
Di-n-octyl Phthalate	ND	U	20	1.3	1	10/06/04	10/13/04	KWG0415309	*
Benzo(b)fluoranthene	ND	U	20	1.2	1	10/06/04	10/13/04	KWG0415309	*
Benzo(k)fluoranthene	ND	U	20	1.7	1	10/06/04	10/13/04	KWG0415309	*
Benzo(a)pyrene	ND	U	20	1.4	1	10/06/04	10/13/04	KWG0415309	*
Indeno(1,2,3-cd)pyrene	ND	U	20	1.4	1	10/06/04	10/13/04	KWG0415309	*
Dibenz(a,h)anthracene	ND		20	1.6	1	10/06/04	10/13/04	KWG0415309	*
Benzo(g,h,i)perylene	ND	U	20	1.7	1	10/06/04	10/13/04	KWG0415309	*

See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note	
2-Fluorophenol	74	27-107	10/13/04	Acceptable	
Phenol-d6	81	22-126	10/13/04	Acceptable	
Nitrobenzene-d5	87	37-119	10/13/04	Acceptable	
2-Fluorobiphenyl	84	27-119	10/13/04	Acceptable	
2,4,6-Tribromophenol	84	42-127	10/13/04	Acceptable	
Terphenyl-d14	51	10-174	10/13/04	Acceptable	

Comments:

Page

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Analytical Results

Client:

CH2M Hill

Project: Sample Matrix: Joint Cannery Outfall -Streams/147323.JC.04.TW

Date Collected: NA

Service Request: K2407650

Date Received: NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name: Lab Code:

Method Blank

KWG0415309-4

Units: ug/L Basis: NA

Extraction Method:

EPA 3520C

Level: Low

Analysis Method:

625

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	24	0.48	1	10/06/04	10/08/04	KWG0415309	,
Bis(2-chloroethyl) Ether	ND	U	9.6	0.34	1	10/06/04	10/08/04	KWG0415309	
Phenol	, ND	U	9.6	0.33	1	10/06/04	10/08/04	KWG0415309	
2-Chlorophenol	ND	U	9.6	0.32	1	10/06/04	10/08/04	KWG0415309	
1,3-Dichlorobenzene	ND	U	9.6	0.36	1	10/06/04	10/08/04	KWG0415309	
,4-Dichlorobenzene	ND	U	9.6	0.32	1	10/06/04	10/08/04	KWG0415309	
1,2-Dichlorobenzene	ND	U	9.6	0.44	1 .	10/06/04	10/08/04	KWG0415309	
Bis(2-chloroisopropyl) Ether	ND	U	9.6	0.32	1	10/06/04	10/08/04	KWG0415309	
Hexachloroethane	ND	U	9.6	0.29	1	10/06/04	10/08/04	KWG0415309	
N-Nitrosodi-n-propylamine	ND	U	9.6	0.50	1	10/06/04	10/08/04	KWG0415309	
Nitrobenzene	ND	U	9.6	0.57	1	10/06/04	10/08/04	KWG0415309	
sophorone	ND	U	9.6	0.25	1	10/06/04	10/08/04	KWG0415309	
2-Nitrophenol	ND	U	9.6	0.38	1	10/06/04	10/08/04	KWG0415309	
2,4-Dimethylphenol	ND		9.6	0.27	1	10/06/04	10/08/04	KWG0415309	•
Pis(2-chloroethoxy)methane	ND	U	9.6	0.28	1	10/06/04	10/08/04	KWG0415309	
,4-Dichlorophenol	ND	U	9.6	0.30	1	10/06/04	10/08/04	KWG0415309	
1,2,4-Trichlorobenzene	ND		9.6	0.36	1	10/06/04	10/08/04	KWG0415309	
Naphthalene	ND	U	9.6	0.37	1	10/06/04	10/08/04	KWG0415309	
Iexachlorobutadiene	ND	U	9.6	0.30	1	10/06/04	10/08/04	KWG0415309	
4-Chloro-3-methylphenol	ND		9.6	0.49	1	10/06/04	10/08/04	KWG0415309	
Hexachlorocyclopentadiene	ND	U	9.6	1.3	1	10/06/04	10/08/04	KWG0415309	
,4,6-Trichlorophenol	ND	U	9.6	0.21	1	10/06/04	10/08/04	KWG0415309	
2-Chloronaphthalene	ND	U	9.6	0.29	1	10/06/04	10/08/04	KWG0415309	
Acenaphthylene	ND	U	9.6	0.24	1	10/06/04	10/08/04	KWG0415309	
Dimethyl Phthalate	. ND	U	9.6	0.26	1	10/06/04	10/08/04	KWG0415309	
2,6-Dinitrotoluene	ND	U	9.6	0.35	1	10/06/04	10/08/04	KWG0415309	,
Acenaphthene	ND	U	9.6	0.29	1	10/06/04	10/08/04	KWG0415309	
,4-Dinitrophenol	ND	U	24	2.3	1	10/06/04	10/08/04	KWG0415309	,
4-Nitrophenol	ND	U	24	2.0	1	10/06/04	10/08/04	KWG0415309	
2,4-Dinitrotoluene	ND	U	9.6	0.28	1	10/06/04	10/08/04	KWG0415309	
luorene	ND	U	9.6	0.33	1	10/06/04	10/08/04	KWG0415309	
-Chlorophenyl Phenyl Ether	ND	U	9.6	0.28	1	10/06/04	10/08/04	KWG0415309	
Diethyl Phthalate	ND	U	9.6	0.29	1	10/06/04	10/08/04	KWG0415309	
-Methyl-4,6-dinitrophenol	· ND	U	24	2.2	1	10/06/04	10/08/04	KWG0415309	

omments:

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Form 1A - Organic

SuperSet Reference: RR41924

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Analytical Results

Client: Project:

CH2M Hill

Sample Matrix:

Joint Cannery Outfall -Streams/147323.JC.04.TW

Service Request: K2407650

Date Collected: NA Date Received: NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name: Lab Code:

Method Blank KWG0415309-4 Units: ug/L Basis: NA

Extraction Method:

EPA 3520C

Level: Low

Analysis Method:

625

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodiphenylamine	ND	U	9.6	0.53	1	10/06/04	10/08/04	KWG0415309	
_1,2-Diphenylhydrazine†	ND	U	9.6	0.51	1	10/06/04	10/08/04	KWG0415309	
t-Bromophenyl Phenyl Ether	ND	U	9.6	0.28	1	10/06/04	10/08/04	KWG0415309	
Hexachlorobenzene	ND	U	9.6	0.63	1	10/06/04	10/08/04	KWG0415309	
Pentachlorophenol	ND	U	24	2.5	1	10/06/04	10/08/04	KWG0415309	
Phenanthrene	ND	U	9.6	0.49	1	10/06/04	10/08/04	KWG0415309	
Anthracene	ND	U	9.6	0.62	1	10/06/04	10/08/04	KWG0415309	
Di-n-butyl Phthalate	ND	U	9.6	0.37	1	10/06/04	10/08/04	KWG0415309	
Fluoranthene	ND	U	9.6	0.66	1	10/06/04	10/08/04	KWG0415309	
Benzidine	ND	U	48	8.8	1	10/06/04	10/08/04	KWG0415309	
Pyrene	ND	U	9.6	0.74	1	10/06/04	10/08/04	KWG0415309	
Butyl Benzyl Phthalate	ND	U	9.6	0.47	1	10/06/04	10/08/04	KWG0415309	
3,3'-Dichlorobenzidine	ND	U	24	0.27	1	10/06/04	10/08/04	KWG0415309	
Benz(a)anthracene	ND	U	9.6	0.60	1	10/06/04	10/08/04	KWG0415309	
Chrysene	ND	U	9.6	0.79	1	10/06/04	10/08/04	KWG0415309	
Bis(2-ethylhexyl) Phthalate	ND	U	9.6	1.9	1	.10/06/04	10/08/04	KWG0415309	
Di-n-octyl Phthalate	ND	U	9.6	0.63	1	10/06/04	10/08/04	KWG0415309	
Benzo(b)fluoranthene	ND	U	9.6	0.59	1	10/06/04	10/08/04	KWG0415309	
Benzo(k)fluoranthene	ND	U	9.6	0.83	1	10/06/04	10/08/04	KWG0415309	
Benzo(a)pyrene	ND	U	9.6	0.66	1	10/06/04	10/08/04	KWG0415309	
indeno(1,2,3-cd)pyrene	ND	U	9.6	0.69	1	10/06/04	10/08/04	KWG0415309	
Dibenz(a,h)anthracene	ND	U	9.6	0.76	1	10/06/04	10/08/04	KWG0415309	
Benzo(g,h,i)perylene	ND	U	9.6	0.82	1	10/06/04	10/08/04	KWG0415309	

urrogate Name	%Rec	Control Limits	Date Analyzed	Note	
2-Fluorophenol	71	27-107	10/08/04	Acceptable	
Phenol-d6	72	22-126	10/08/04	Acceptable	
litrobenzene-d5	73	37-119	10/08/04	Acceptable	
2-Fluorobiphenyl	79	27-119	10/08/04	Acceptable	
2,4,6-Tribromophenol	86	42-127	10/08/04	Acceptable	
erphenyl-d14	98	10-174	10/08/04	Acceptable	

omments:

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Form 1A - Organic 1315

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QA/QC Report

Client: Project: CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

Sample Matrix:

Service Request: K2407650

Date Extracted: 10/06/2004

Matrix Spike/Duplicate Matrix Spike Summary Semi-Volatile Organic Compounds by GC/MS

Sample Name: Lab Code:

Batch QC

K2407744-001

EPA 3520C

Extraction Method: Analysis Method: 625 Units: ug/L Basis: NA

Date Analyzed: 10/08/2004

Level: Low

Extraction Lot: KWG0415309

Batch QCMS KWG0415309-1

Batch QCDMS KWG0415309-2

Analyte Name	Sample	Matrix Spike			Duplicate Matrix Spike			%Rec		RPD
	Result	Result	Expected	%Rec	Result	Expected	%Rec	Limits	RPD	Limit
Phenol	ND	84.1	118	72	87.1	118	74	17-126	3	30
2-Chlorophenol	ND	82.2	118	70	91.5	118	78	31-117	11	30
1,4-Dichlorobenzene	ND	68.9	118	59	77.2	118	66	34-97	11	30
N-Nitrosodi-n-propylamine	ND	91.1	118	77	97.2	118	83	32-139	7	30
1,2,4-Trichlorobenzene	ND	75.4	118	64	87.4	118	74	10-167	15	30
4-Chloro-3-methylphenol	ND	97.1	118	83	106	118	90	10-158	9	30
Acenaphthene	ND	93.6	118	80	102	118	86	34-118	8	30.
4-Nitrophenol	ND	101	118	86	107	118	91	28-134	6	30
2,4-Dinitrotoluene	ND	105	118	89	109	118	93	34-143	4	30
Pentachlorophenol	ND	102	118	86	106	118	90	37-132	4	30
Pyrene	ND	97.3	118	83	96.7	118	82	10-136	1	30

esults flagged with an asterisk (*) indicate values outside control criteria. esults flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Project: CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

Sample Matrix:

Service Request: K2407650 Date Extracted: 10/06/2004

Date Analyzed: 10/08/2004

Lab Control Spike Summary Semi-Volatile Organic Compounds by GC/MS

Extraction Method: Analysis Method:

EPA 3520C

Units: ug/L

Basis: NA Level: Low

Extraction Lot: KWG0415309

Lab Control Sample KWG0415309-3 Lab Control Spike

	Lab	Control Spike	e	%Rec	
Analyte Name	Result	Expected	%Rec	Limits	
N-Nitrosodimethylamine	75.8	95.2	80	51-112	
Bis(2-chloroethyl) Ether	77.5	95.2	81	56-101	
Phenol	79.3	95.2	83	48-101	
2-Chlorophenol	83.7	95.2	88	60-100	
1,3-Dichlorobenzene	78.5	95.2	82	56-94	
1,4-Dichlorobenzene	77.4	95.2	81	55-91	
1,2-Dichlorobenzene	81.0	95.2	85	57-96	
Bis(2-chloroisopropyl) Ether	65.4	95.2	69	50-109	
Hexachloroethane	77.8	95.2	82	52-98	
N-Nitrosodi-n-propylamine	87.8	95.2	92	62-113	
Nitrobenzene	77.1	95.2	81	62-103	
Isophorone	84.2	95.2	88	74-111	
2-Nitrophenol	87.6	95.2	92	66-103	
2,4-Dimethylphenol	82.6	95.2	87	51-98	
Bis(2-chloroethoxy)methane	76.2	95.2	80	65-97	
2,4-Dichlorophenol	87.8	95.2	92	65-100	
1,2,4-Trichlorobenzene	78.0	95.2	82	58-97	
Naphthalene	80.2	95.2	84	64-97	
Hexachlorobutadiene	76.4	95.2	80	53-98	
4-Chloro-3-methylphenol	92.9	95.2	98	50-120	
Hexachlorocyclopentadiene	18.5	95.2	19	10-64	
2,4,6-Trichlorophenol	91.1	95.2	96	67-106	
2-Chloronaphthalene	83.9	95.2	88	61-104	
Acenaphthylene	91.4	95.2	96	73-108	
Dimethyl Phthalate	92.8	95.2	97	54-123	
2,6-Dinitrotoluene	96.5	95.2	101	78-112	
Acenaphthene	86.5	95.2	91	70-104	
,4-Dinitrophenol	89.0	95.2	94	37-129	
4-Nitrophenol	88.4	95.2	93	49-123	
2,4-Dinitrotoluene	98.7	95.2	104	77-121	
Fluorene	89.1	95.2	94	66-115	
-Chlorophenyl Phenyl Ether	89.0	95.2	93	68-108	
Diethyl Phthalate	93.1	95.2	98	24-152	
-Methyl-4,6-dinitrophenol	92.4	95.2	97	49-120	
N-Nitrosodiphenylamine	97.4	95.2	102	71-114	
1,2-Diphenylhydrazine	95.5	95.2	100	70-111	

esults flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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RR41924

QA/QC Report

Client: Project: CH2M Hill

Joint Cannery Outfall -Streams/147323.JC.04.TW

Sample Matrix:

Service Request: K2407650 Date Extracted: 10/06/2004

Date Analyzed: 10/08/2004

Lab Control Spike Summary Semi-Volatile Organic Compounds by GC/MS

Extraction Method:

EPA 3520C

Analysis Method:

625

Units: ug/L

Basis: NA

Level: Low

Extraction Lot: KWG0415309

Lab Control Sample KWG0415309-3 Lab Control Spike

	Lab	Control Spike	e	%Rec		
Analyte Name	Result	Expected	%Rec	Limits		
-Bromophenyl Phenyl Ether	99.3	95.2	104	69-110		
Hexachlorobenzene	98.9	95.2	104	68-116		
Pentachlorophenol	92.6	95.2	97	50-122		
Phenanthrene	89.6	95.2	94	70-110		
Anthracene	93.7	95.2	98	71-110		
Di-n-butyl Phthalate	. 93.3	95.2	98	62-119		
Fluoranthene	92.2	95.2	97	62-116		
Benzidine	130	190	68	10-229		
Pyrene	89.1	95.2	94	65-113		
Butyl Benzyl Phthalate	90.2	95.2	95 .	61-125	4	
3,3'-Dichlorobenzidine	94.8	95.2	100	49-109		
Benz(a)anthracene	93.2	95.2	98	75-108		
Chrysene	96.9	95.2	102	73-113		
Bis(2-ethylhexyl) Phthalate	94.5	95.2	99	67-119		
Di-n-octyl Phthalate	92.3	95.2	97	58-131		
Benzo(b)fluoranthene	93.1	95.2	98	74-112		
Benzo(k)fluoranthene	91.2	95.2	96	73-124		
Benzo(a)pyrene	94.5	95.2	99	73-108		
Indeno(1,2,3-cd)pyrene	93.0	95.2	98	55-122		
Dibenz(a,h)anthracene	99.2	95.2	104	69-117		
Benzo(g,h,i)perylene	97.4	95.2	102	60-118		

esults flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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